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SYPHILOGRAPHY AND DERMATOLOGY.

DEVOTED TO THE CONSIDERATION AND TREATMENT OF  
VENEREAL AND SKIN DISEASES.

EDITED BY  
M. H. HENRY, M.D.,  
SURGEON-IN-CHIEF OF THE STATE EMIGRANTS' HOSPITALS, WARD'S ISLAND, NEW YORK;  
FELLOW OF THE NEW YORK ACADEMY OF MEDICINE.  
MEMBER OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK; HONORARY SECRETARY FOR  
NEW YORK OF THE ANTHROPOLOGICAL SOCIETY OF LONDON, ETC., ETC., ETC.

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# THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY.

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Original Communications.

ON DYSIDROSIS.

BY TILBURY FOX, M.D., LONDON, F.R.C.P.,

*Physician to the Department for Skin Diseases in University College Hospital, London.*

I FORWARD the following brief account of a form of eruption which has not been accurately defined and described by any writer on skin diseases as yet, for insertion in the excellent AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY, if it should please its able editor to give it a place in that publication. The description, I may say, will appear in the third and much enlarged edition of my work on diseases of the skin, just on the point of being published; but the account of the disease to which I refer will prove none the less interesting or original to the readers of the DERMATOLOGICAL JOURNAL, because of that circumstance.

This disease is characterized essentially by the retention in the follicles of the skin of sweat, rapidly and freely secreted. The follicles are much distended, and the retention of the sweat and the distention of the follicles are followed secondarily by congestion of the sweat follicles, by the formation of bullæ, maceration of the epidermis, and, it may be, more or less dermatitis. This disease bears the same relation, in fact, to the sweat follicles, as does acne to the sebaceous follicles. I shall not fail to explain the differences which it presents from



sudamina and miliaria. The disease is of common occurrence, and it is regarded as an eczema. I don't know that I can bear stronger testimony to the correctness of my views as regards the separate and distinct character of the disease, than by stating that those of the students of the hospital to which I am attached, who have attended the skin clinique there for only a short time, are enabled to recognize the disease with readiness, and to give at once its distinctive features and its pathology.

*Clinical Features.*—This eruption varies much in intensity. In its slightest form it is confined to the hand, occurring in the interdigits, over the palm, and along the sides of the fingers, and on the palmar surfaces—some or all of these parts. The eruption makes its appearance in those who habitually perspire freely, and generally in the summer, but oftentimes in the winter; and the patients attacked complain of feeling weak and depressed. The eruption is made up, in the first instance, of minute vesicles deeply embedded in the skin. The vesicles are at first isolated. They do not burst readily, and when they have existed for a few days the appearance of the affected part is just as though a number of small boiled sago-grains were embedded in the skin. These sago-grain-looking points are caused by the distention of the sweat-ducts by clear sweat, whose transparency contrasts with the aspect of the follicular wall and adjacent parts. These beaded or sago-grain-like embedded vesicles are often well seen at the tips of the fingers on the palmar surface, but, in severe cases, more or less all over the palm of the hand, and, in fact, the fingers. There is always much itching and a good deal of burning present with the eruption. As the disease progresses the vesicles get more distended and become raised. They are not pointed but ovalish; they eventually become faintly yellow in color, and run together into the form of aggregated masses of small bullæ. Actual bullæ of greater or less size may form. The hand is then very stiff and painful. I have seen the back of the hand and the palm with bullæ upon them an inch in height. If the vesicles be pricked, a fluid like clear serum oozes out (altered sweat), and it is at first alkaline, and then acid. If the

vesicles and bullæ be left undisturbed the fluid is partly absorbed, and, I imagine, partly evaporated away; the cuticle then peels off, leaving a *non-discharging, reddened, exposed derma*. But the cuticle, especially about the roots of the fingers on the palmar aspect, may become soddened, and like wet chamois leather. In some of the slighter cases the disease does not run on to the development of bullæ. In the severer and the slighter forms, one or both hands may be affected. When the eruption is disappearing altogether from the hand, the palm is left harsh or slightly scaly. It has been mistaken for syphilitic disease, but there is no deposit, and the palm is not thickened or tuberculated.

Now there are certain other phenomena, varying under different circumstances, observed in this disease.

*First, as regards the Eruption.*—The eruption about the hand or hands may be complicated by a rash, more or less general over the body. In some cases it may be limited to the back of the hand and the fore-arms, or it may be in severe cases of the disease seen about the face, the neck, and on the trunk, the body, and the feet. This eruption is similar to that of lichen tropicus and miliaria; it is hyperæmia of the sweat follicles. It is very itchy. The same state of things as exists in the hands may be present in the feet, large bullæ forming, but the sago-like grains will be found at the extending edge of the disease. At times the vesicular eruption, when in its confluent form about the palm and fingers, presents, after it has existed a little while, a peculiarly yellow look, like slightly yellow wax or honey. There may be one or more outbursts of the eruption, and the disease lasts ten days or so in some cases, but in others for two or three weeks. In some cases, when the outpoured sweat goes, a *red, dry, slight, scurfy, painful—sometimes awfully painful—surface is left behind, and becomes chronic*. Patients in whom this occurs are thin, pale, anxious-looking, depressed, and so on. They require careful general treatment for the removal of the nervous debility that exists, when the hand or hands will get well. In these cases the sweat-ducts are frequently seen dilated here and there over the affected surface, and never seem to recover their proper calibre.

*Secondly, as regards General Symptoms.*—I never knew any patient who had this disease I am now describing, well. In all the severer cases patients have been the subject of great nervous debility, and in some cases have been under the care of physicians for various anomalous nervous diseases—odd muscular affections. Some have been prostrated by mental anxiety or worry. They always “perspire too freely,” are speedily exhausted, and often dyspeptic.

The origin of the disease can be clearly made out as a distention of the sweat-duct, and not only its superficial but also its deep part, and this is followed by the continued distention of the duct, the aggregation and coalescence of the vesicles, and sometimes the results of the maceration of the parts attacked.

*Its Alliances and Differences as regards other Diseases like it.*—This disease has, as before stated, been described as an eczema, but it lacks the catarrhal feature of eczema. It is not inflammatory; it is unaccompanied by sero-purulent discharge, by crusts, or the like. The vesicles are not produced by the uplifting of the cuticle by sero-purulent fluid, but by the distention of the sweat follicles by retained sweat. Nothing is more striking about the disease than the absence of anything like sero-purulent fluid in the disease, and crusts formed by drying up of inflammatory products. Eczema may, however, and does rarely follow the disease, I admit, but not frequently.

As regards sudamina; the vesicles of sudamina occur in connection with many febrile disturbances, and are not due to distended sweat follicles so much as to the uplifting of the horny layer of the cuticle by sweat. The opening of the duct lies at the base of the vesicle.

The red papules seen scattered over the surface at times, no doubt constitute miliaria, but this is only a complication—just what might be expected where the sweat function was disordered; and no doubt sudamina are sometimes present also.

From these remarks it may be gathered that the sweat gland as a whole is involved in the disease I have now described.

*Cause.*—This I do not pretend to define. I only know that

this disease occurs under such circumstances that it may with probability be supposed that the innervation of the gland is specially at fault. It seems to me that there is a sudden influx of sweat, and the flow is so rapid that it cannot escape; the whole gland is distended, at least its duct, and the fluid presses in from below only to block up the upper portion of the duct by pressing together the twists of the duct in that part of the cutis where it runs in a spiral manner. If there is sudden pressure from below, the spiral twist of the duct must greatly favor the obliteration of the duct. In sudamina, I take it, the opening is plugged by exuvia, and the sweat finds its way laterally between the horny layers of the cuticle; the secretion of sweat is not so free nor continuous, because not due directly to special nerve paresis. The explanation of the causes of the disease I have been describing, and its differences from sudamina are, I take it, to be discovered in some such direction as I now suggest.

*Diagnosis.*—It must be distinguished from hyperidrosis, eczema, syphilis, tinea circinata, and erythema papulatum. In hyperidrosis there is a large amount of sweat poured out upon the surface; it is not retained to distend the sweat follicles. I have already referred to the difference between this disease and eczema; nothing could be more different than the origin and course of eczema and dysidrosis. When the disease is disappearing, that is to say, when the sweat collected into the follicles and in the bullæ has dried away, and the cuticle is peeling off, sometimes a reddened, dry, harsh, slightly scaly surface is left behind, and this looks like a tinea circinata, or a scaly syphiloderm; but the history of the case in dysidrosis at once clears up all doubt, for the patient explains that the particular stage and aspect now referred to was anteceded by the formation of vesicles and bullæ. In tinea circinata the fungus elements would be detected, the disease affects the back of the hands, and arises from small red, itchy, scurfy places primarily. In syphilitic disease, the derma being affected, the disease is deeper, therefore the surface is altogether more harsh and thicker; whilst dysidrosis, so far as the inflammatory state of the skin is concerned, is very superficial. Then in syphiloder-

mata there are significant concomitants, and their origin cannot be traced back to an eruption of a vesicular character of acute nature. They are also tubercular in form.

*Treatment.*—This consists, in the severer form of the disease, in both general and local remedies. The patients who suffer from this disease, as I have stated before, are the subjects of anomalous nervous symptoms. They are thin, they fatigue easily, they assimilate badly, and they are often anæmic. Some require the removal of dyspepsia, some anæmia, some do best with the mineral acids and strychnine, so far as these are calculated to suit particular cases. But before attempting to improve the general health, it is desirable to begin in all cases with diuretics, and the kidneys should be made to act freely. This is not an empirical mode of procedure, because by it the skin is relieved of so much work. I give acetate of potash with ammonia and some juniper as the rule, together with some simple aperient. The patient should avoid fatigue and hot drinks, and should be quiet in the house till the worst of the disease is over. If the patient be rheumatic or gouty, and the urine very acid, I find it a good plan to give alkalies with a freer hand, and I prefer large doses of Vals water with the meals. If when the disease shows itself the patient be specially weak, and particularly if there be anything like neuralgic symptoms, it is well to combine the use of quinine in full doses, if it can be taken—gr. ij. to gr. v. for a dose—with the diuretic medicines. In certain females, with loaded systems and amenorrhœa, aloes may be given with advantage. When the disease subsides, anti-dyspeptics, followed by courses of arsenic and iron, with or without cod-liver oil, will generally improve the general health greatly. As regards local measures, there is much to be done to alleviate the pain and discomfort. The body generally may be covered with miliary eruption. The itching that accompanies this may be generally relieved by bran and soda baths, or a lead bath, made by adding a pint of lead lotion to a bath. The surface may be carefully sponged with a calamine, or weak lead lotion. But the body may not be affected, and the hands alone are frequently attacked, but whether by themselves or in connection with the body, the



hands require careful management. The action of diuretics internally, and the exhibition of quinine, will serve to some, often to a marked extent, to check the rapid secretion of sweat; but if the disease be seen in the earliest stage, something may also be done in the same direction by binding up the fingers and hand in weak lead solution. Presently, however, the tense and painful hand will not bear this treatment. In that case, relief may be had by puncturing the sago-grain-like vesicles and the bullæ, when not a little fluid will escape. The hand should then be encased in oil, or the old ung. plumbi co. of the old London Pharmacopœia (Kirkland's neutral cerate), and dressed twice a day. The disease must, as nurses say, "come to its height," and then subside, and it is at this very period that much good is to be done by keeping the parts encased in oil or emollient unguent, to prevent them getting harsh, and to enable the derma to recover its healthy state when the cuticle peels off and leaves it in a red and tender state. If a chronic red and scaly surface is left behind, it must be treated tenderly, and the medical man must trust to internal tonics to improve the general health, and so influence the local disease. But a borax lotion, and by-and-by a weak tarry ointment, may be used to stimulate the surface somewhat into healthy action. Some cases of the severer form are a long time getting well.

In the slighter cases the internal use of quinine and emollient lotions and ointments soon removes the disease.

The main thing to do is to make a correct diagnosis, lest the disease be treated as eczema, or syphilis, or scabies.

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NOTE.—No doubt objection may be taken to the precise designation given to the above-described eruption. It may be said that the term means difficult sweating, and yet there is more than this present in the disease. I can only reply that the primary state of the disease is excessive secretion of sweat, and this finds a difficulty in escaping, and remains in the follicles to distend and otherwise disorder them. What follows upon this, viz., the formation of bullæ, the maceration of the cuticle, etc., is secondary to the primary condition just mentioned. The word dysidrosis conveniently represents the essential and primary nature of the eruption.

## ARSENIC: ITS THERAPEUTICAL APPLICATION TO DISEASES OF THE SKIN.

By EUGENE PEUGNET, M.D.,

*Surgeon to the North Western Dispensary—Department of Skin Diseases and Surgery.*

NOTWITHSTANDING the vast change of opinion which has taken place as to the therapeutical value of arsenic in the treatment of cutaneous affections, many high authorities still recommend its use. It may therefore be of interest to review its physiological, toxic, and therapeutical actions on the skin. The pharmacology\* is necessarily limited to those preparations the efficacy of which is precognized in the treatment of cutaneous affections.

*Arsenious acid* forms the basis of all arsenical preparations, whether for internal administration or local application.

*Mode of administration.*—In solution, pill, or combination with other remedies. *Dose*, gr.  $\frac{1}{30}$  to gr.  $\frac{1}{8}$ .

*Arseniate of ammonia, ammoniæ arsenias.*—A soluble salt, administered in solution. *Dose*, gr.  $\frac{1}{30}$  to commence with.

*Arseniate of iron, ferri arsenias.*—Insoluble salt. *Dose*, gr.  $\frac{1}{12}$  to  $\frac{1}{8}$ . No longer used on chemical and physiological grounds.

*Arseniate of soda, sodæ arsenias.*—Soluble salt, the basis of Pearson's solution, which is formed by dissolving gr. j of the salt in  $\frac{3}{4}$  j of distilled water. *Dose* of the salt, gr.  $\frac{1}{30}$  to  $\frac{1}{8}$ ; of the solution, 10 to 40 drops. This preparation, although less known in the United States and Great Britain, has a just and deserved reputation in France.

*Arseniate of quinine, quiniæ arsenias.*—A salt insoluble in water; soluble in alcohol. *Dose*, gr.  $\frac{1}{8}$  three times a day in pill.

*Iodide of arsenic, arsenici iodidum.*—Consists of one part of arsenious acid and three parts of arsenic; is soluble. *Dose*, gr.  $\frac{1}{8}$  in solution or pill.

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\* U. S. Dispensatory, Pereira's *Materia Medica*, Dictionnaire Encyclopédique des Sciences Médicales, Graham's Chemistry, French Codex.

*Asiatic pills, pilulæ Asiaticæ.*—Composed of arsenious acid and powdered black pepper, about gr.  $\frac{1}{15}$  of the former to each pill. *Dose*, one, three times a day.

*Boudin's solution of arsenious acid.*—Is much used on the continent; prepared by boiling grs. 15.434 of arsenious acid in  $\mathfrak{z}$  40  $\mathfrak{m}$  57 of distilled water till the acid is entirely dissolved, filtering and cooling, then making up the deficiency caused by the evaporation by the addition of a sufficient quantity of distilled water, finally mixing it with  $\mathfrak{z}$  40  $\mathfrak{m}$  57 of white wine. Each fluid ounce contains about gr.  $\frac{1}{4}$  of arsenious acid. *Dose*, from 3 j to 3 iv.

*Fowler's solution, liq. potassæ arsenitis.*—This is the favorite and well-known formula; each fluid drachm contains 57 drops and gr.  $\frac{1}{2}$  of arsenious acid. *Dose*, 3 to 15 drops or minims, gradually increased.

*Solution of the chloride of arsenic, liquor arsenici chloridi;* Lond. Phar.—Each fluid ounce contains about gr.  $1\frac{1}{2}$  of arsenious acid. *Dose*, 3 to 10 drops three times a day.

*Donovan's solution, liquor arsenici et hydrargiri iodidi.*—This preparation was introduced to the profession by Mr. Donovan, of Dublin. The formula of the U. S. Disp., Procter's is the best. *Dose*, from 2 to 20 drops three times a day, gradually increased: the latter dose contains gr.  $\frac{1}{24}$  of arsenious acid, a fraction over  $\frac{1}{15}$  of the deutoxide of mercury and about gr.  $\frac{1}{4}$  of iodine. Each fluid drachm contains only 45 drops. It will sometimes cause salivation. There are various other preparations, but these are the essential ones and mostly in vogue.

EXTERNAL AND LOCAL APPLICATIONS.—Arsenious acid and some of its various preparations form the basis of numerous powders, pastes, ointments, lotions, and baths. The following formulæ are the most common:—

*Escharotic arsenical powder, strong*, of the French Codex, frère Côme's, contains of powdered arsenious acid gr. 15.434; of powd. red sulphuret of mercury, 3 j, gr. 17.17; of pulv. torrified sponge, gr. 30.868. This powder, like Souberian's, contains gr.  $\frac{1}{3}$  of arsenious acid.

*Escharotic arsenical powder, mild*, of the French Codex.—Antoine Dubois's powder is composed of powd. arsenious acid,

grs. 15.434; red sulphuret of mercury, 34, grs. 6.944; of powd. dragon's blood (*Calamus Draco*), 32, grs. 3.472; this powder has about one-third of the strength of the former, the arsenious acid being in the ratio of  $\frac{1}{3}$ .

*Dupuytren's powder* is composed of one part of arsenious acid and from twenty-four to ninety-nine parts of calomel. It is much less active than Dubois's, and only acts as an irritant and cathartic.

Arsenious acid is also the ingredient of various other powders; but it should *never* be applied, *pure or undiluted*, to a denuded surface, for, as stated by Mr. S. Cooper, it is *murderous practice*.

*Sulphuret of arsenic*.—Is the basis of various epilatory powders, Atkinson's, etc., but the most celebrated of which is the *Rhusma* of the Turks; according to Felix Plater, it is composed of eight parts of quicklime and one or two parts of the sulphuret of arsenic, which are powdered and mixed; it is then diluted with the white of eggs or with lye and rubbed on the part which is to be epilated and allowed to dry slowly; it is then washed off with water. Arsenical depilatories appear to owe their activity to the alkaline sulphuret which is formed by the reaction of lime or sodium on the tersulphuret of arsenic. This formula is sometimes followed by serious accidents, owing to the various proportions of arsenious acid in the commercial king's yellow; hence the importance of making use of nothing but *tested* articles in pharmacy.

All the arsenical powders can be converted into pastes when required, by the addition of water, which can be spread on the parts destined to be modified by the arsenical topic.

*Iodide of Arsenic*.—Can also be used diluted with various powders, excepting starch, which moisture would immediately decompose, on account of the stronger affinity of iodine for starch.

Pastes and ointments, lotions, and baths are made use of, and the preparations above mentioned enter into their composition; to prevent unnecessary repetition, the formulæ will be given when treating of their applications to the special forms of skin affections.

INCOMPATIBLES.—Many practitioners are inclined to write elaborate and fancy prescriptions, ignoring entirely the important pharmaceutical *law* of compatibles and incompatibles; although in that case *well-educated pharmacists* endeavor to correct the evil by first mixing the compatible ingredients, then adding the incompatibles, which in most formulæ will prevent the immediate decomposition, which delays but does not avert the evil. Hence, *the simpler the formula the greater the efficacy of the remedy.*

It might be stated that arsenious acid is not destroyed by the decomposition. True; but if an insoluble tannate of arsenic is precipitated, the amount of the dose will be diminished, and with the risk of the patient taking a toxical dose towards the last.

Again, pharmacists may in a great measure deserve censure for carelessness in selecting the pharmaceutical articles, or in preparing the formula; for instance, making use of undistilled water, which is by no means an uncommon occurrence, by means of which the arsenious compounds would be decomposed and the insoluble arseniate of lime precipitated; which in some cases seems to explain the cause of the uncertain action of the arseniate of soda and of Fowler's solution.

Again, pharmacists neglect to *test* the purity of their preparations, and when they do it is a *rara avis*.

Will this not account in a great measure for the want of confidence in remedies, in their supposed uncertainty? Is it not the solid basis upon which rests the true art of prescribing?

Arsenical compounds are incompatible with the following substances:—

1. Lime and its calcareous salts; therefore all waters containing carbonate of lime.
2. Magnesia and its salts; causing insoluble precipitates.
3. Alkaline sulphurets.
4. *Iron and its various compounds*, which, reacting on arsenic, forms insoluble compounds.
5. Nitrate of silver; forms insoluble compounds.
6. Cinchona, its various compounds, and all substances, barks and roots, containing tannin; although the decomposition does not then take place as rapidly.



## PHYSIOLOGICAL ACTION OF ARSENIC ON THE SKIN.\*

*Its External Application.*—All the compounds of arsenic, even the insoluble ones, and, *à fortiori*, the soluble ones are much more irritant. They not only induce burning, pain in the part to which they are applied, but they corrode, destroy, mortify; are therefore excellent depilatories, for they not only cause the fall of the hair, but also destroy the hair-bulbs. Excellent parasitocides, because they rapidly destroy the animal and vegetable parasites. But in order that the hair or the parasite be *only* attacked on the cutaneous surface, it is important that the topical preparation be so compounded as only to produce an evanescent irritation of the skin, so as *not* to cause a structural lesion. Arsenic is essentially *caustic* in its topical action. In the form of arsenious acid it is much more active; if its components are pure, as heretofore stated, its action should be mitigated.

As a caustic it destroys the skin by softening; it does not, like other caustics, coagulate the albuminoid principles; its eschar is grayish, brownish, soft, and pultaceous; as observed by Mr. Mialhe, it is a fluidifying caustic; therefore destroying more effectually, but has a tendency to extend its action by absorption beyond the eschar formed by it.

The characteristic caustic action of arsenic is that it only exerts itself on the living tissues, whilst it dries, mummifies, and preserves the dead ones.

Pulverized arsenical compounds sprinkled on the surface of the skin induce considerable irritation, giving rise to eruptions of various forms; it may be simply an erythematous redness; but if the contact is prolonged or often renewed, papules, vesicles, even pustules, extending even to ulcerations which become covered with scabs. These cutaneous lesions have been

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\* Rayer, *Traité des Maladies de la peau*, 2d ed. Paris, 1835. Imbert Goubeyre, *Hist. des éruptions arsenicales*, *Monit. des hôpitaux*, 1857. A. Chevalier, *Recherches sur les dangers que présente le Vert de Schweinfurt*, etc., *Ann. d'hygiène*, 2d série, t. xii., 1859. Follin, *Eruptions papulo-ulcéreuse que l'on observe chez les ouvriers Schweinfurt*, *Archiv. générales de Médecine*, 5 sér., t. x., 1857. Tilbury Fox, *Diseases of the Skin*, Am. ed., 1871.

observed among the workmen of the various manufactories in which arsenical compounds are used, also among the miners of the various arsenical mines; they were first noted by Henckel, Scheffler, and Klinge, and more recently by Bramer, Langendorff and Brockman in Germany. They have also been studied by Imbert-Goubeyre, A. Chevallier, Bazin, Vernois Beaugrand, Follin and Blandin in France. There does not appear to have been much attention paid to this action either in Great Britain or the United States.

Though arsenical caustics should not only be used with caution, on account of the local lesions they sometimes cause, but also from the toxical effects sometimes induced by *absorption*.

*Internal administration.*—It cannot be doubted that arsenic has a decided and varied action on the skin, in some cases causing undue dryness, in others moistures; however, these effects are by no means constant. But its specific action occasionally manifests itself by colorations and eruptions.

The coloration of skin induced by the prolonged use of arsenic, although rare, appears to be similar, though not so deep as that induced by nitrate of silver; the face is the part especially affected, which assumes a brownish and leaden tint. This particular action must be due to a modification in the pigment, as it cannot be explained on chemical grounds.

M. Devergie\* states that the *brown spots* which frequently follow, are even imperative as an assurance of cure, in an arsenical course of treatment in the squamous eruptions. According to him, these spots require from six to twelve months to disappear.

The eruptions or cutaneous lesions following an arsenical course of treatment are of various forms, nature, and aspect. They are occasionally papular, vesicular, or pustular, but urticaria is the most common form. It occasionally causes an erythema of the conjunctiva, which at times extends to the lids; at others the cedema is erysipelatous. Petechiæ, ecchymosis, also gangrene, the latter of which generally affects the genitals, are induced by poisonous doses of arsenic.

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\* *Traité des Maladies de la peau.*

There are some observers who positively deny the existence of arsenical eruptions; but the observations of Orfila, Christison, Girdlestone, Rayer, Fowler, Guibert, Barrier, Schulse, Kellie, Horst, and Tilbury Fox are too conclusive to be denied.

Chatin's experiment with a blister on a patient who had taken arsenic is strong presumptive evidence of its elective action on the skin, as the serum in the blister contained arsenic. This is further confirmed by the fact that the three usual effects of medicinal doses are:—the silvery tongue, puffiness of the face, and irritation of the conjunctiva; the first being due to an increased development of epithelium, the three indicating an injection of the superficial capillaries, giving nourishment to a rapid growth of epithelium. For arsenic undoubtedly prevents the waste of tissue, and fosters the growth of the epithelial textures.

HISTORY.—The first to prescribe it in Europe for the treatment of cutaneous affections were Adair and Girdlestone, of Yarmouth, who recommended highly Fowler's solution in the treatment of prurigo, psoriasis, lepra, and tenia. They always administered it in small doses, carefully watching its effects, discontinuing its use for a few days if necessary, guarding when indicated against its irritant effects with opium.

Mr. Duffin prescribed it in upwards of four hundred cases without perceiving any unpleasant effects. Dr. Rush, of Philadelphia, prescribed arsenious acid in pills for the treatment of various cutaneous affections. Willan and Bateman, etc., advocated the use of Fowler's solution. Rayer subsequently recommended it in various cutaneous affections, but, like a thorough *therapeutist*, insisted upon watching the "*operative*" as well as the "*curative*" effects.

It then came into general use, but lately has lost ground, owing in a great measure to the neglect of the various practitioners of the sound therapeutical indications first advanced by Adair and Girdlestone, subsequently enlarged and insisted upon by Rayer; *also to its frequent misapplication in cases in which it was contra-indicated*; as well as to the advanced German school of cutaneous medicine, which in its profound pathological researches obviously neglects therapeutics, and I

might say depends entirely upon grooming and local applications, which may and does remove the local manifestation of disease, but exerts but little or no influence on the diathesis.

#### RULES FOR THE ADMINISTRATION OF ARSENIC.

1. It should never be prescribed in cases where there is a marked irritability or disordered condition of the digestive organs.

2. Patients should be warned against the liability of taking cold during its administration.

3. It may sometimes be necessary to conceal its administration from the patient.

4. Its irritant effects may occasionally have to be guarded against by opium.

5. It should always be taken during or immediately after meals.

To these should be appended the no less if not the more important ones of Dr. McCall Anderson,\* as follows:—

“1. Let the dose, at first small, be gradually increased until the medicine disagrees, or till the disease begins to yield, and then let it be gradually diminished.

“2. If the medicine disagrees, do not omit it altogether without very good reason, but try it in smaller doses, or in another form, or omit for a few days till the bad effects have passed off.

“3. To give it a fair trial it must be continued for a considerable period of time, because in many cases the eruption does not disappear till after it has been administered for many weeks.

“4. Do not, as a rule, permit the patient to give up taking the medicine entirely till some weeks have elapsed since the complete disappearance of the eruption.”

Dr. Begbie† states that, “in order to secure its virtues as an alterative, it will be necessary to push the medicine to the full

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\* McCall Anderson, *Diseases of the Skin, Eczema*, 2d Ed.

do. do. do. do. do. *Psoriasis and Lepa*, 1st Ed.

† *Physiological and Therapeutical Effects of Arsenic*. Edinburgh, 1862.

development of the phenomena which first indicate its peculiar action on the system. Arsenic, as a remedy, is too often suspended, or altogether abandoned, at the very moment its curative powers are coming into play. The earliest manifestation of its *physiological action* is looked upon as its *poisonous operation*; the patient declares that his medicine has disagreed with him; forthwith his physician shares his fears, the prescription is changed, and another case is added to the many in which arsenic is said to have failed after a fair trial of its efficacy."

SPECIAL CUTANEOUS AFFECTIONS.\*—In considering the application of arsenic to special diseases, I have adopted Dr. Tilbury Fox's modification of the nomenclature of the Royal College of Physicians and of M. Wilson's clinical scheme. As this paper is limited to the therapeutical application of arsenic, the formulæ in each will be found very simple and few in number, as I have carefully avoided all formulæ which might be or become incompatible—although they may have been recommended by high authorities.

I.—*Zymotic diseases (eruptions of acute specific diseases).* Arsenic is not indicated.

II.—*Local dermal inflammations,—erythematous; catarrhal or eczematous; plastic or lichenous; suppurative or pustular; bullous.*—Arsenic is of decided benefit in several diseases of this class.

*Chronic Eczema*, especially in the forms accompanied with the lithic acid diathesis, either Fowler's or Pearson's solutions may be given, diluted with water or milk. When it is advisable to combine arsenic with other agents, the following formulæ are recommended:—

|   |          |
|---|----------|
| R. Liq. potassæ arsenitis (Fowler's)..... | ℥ lxxx.  |
| Potassii iodidi.....                      | gr. xvj. |
| Iodini.....                               | gr. iv.  |
| Aquæ flor. aurantii.....                  | ʒ ij.    |

M. Dose: a teaspoonful three times a day.—*Neligan.*

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\* Neumann's Text-book, Eng. ed. London, 1871. Hebra, Diseases of the Skin. Bazin. Hardy. Neligan, Diseases of the Skin, 4th Am. ed.



|                                     |        |
|-------------------------------------|--------|
| R. Liquoris potassæ arsenitis.....  | 3 jss. |
| Liquoris morphæ hydrochloratis..... | 3 j.   |
| Syrupi limonis.....                 | ℥ ss.  |
| Træ cocci.....                      | ℥ ss.  |
| Inf. cascarillæ.....                | ℥ xij. |

M. Dose: a tablespoonful three times a day when the digestive organs are weak and the stomach easily deranged.

[*Anderson.*

|   |         |
|---|---------|
| R. Sodæ arseniatis.....                         | gr. ij. |
| Aquæ destillatæ.....                            | q. s.   |
| Misce, fiat solutio et adde                     |         |
| Pulv. G. Guiaci.....                            | 3 ss.   |
| Hydrarg. sulphuretum nigrum.....                | ℥ j.    |
| M. Fiat massa et dividenda in pilulæ, No. xxiv. |         |

Dose: one, two, or three times a day.—*Wilson.*

|                         |               |
|-------------------------|---------------|
| R. Sodæ arseniatis..... | gr. j. to ij. |
| Aquæ destillatæ.....    | ℥ viij.       |

M. Dose: one tablespoonful daily, then two in conjunction with, or alternately with, alkaline and vapor baths, and tincture of cantharides night and morning, and the mineral waters of St. Sauveur and Louèche.—*Hardy.*

R. Liq. hydrargyri et arsenici iodidi (Donovani), 5 to 20 minims three times a day, gradually increased.

[*Neligan and Anderson.*

|                              |         |
|------------------------------|---------|
| R. Olei jecoris asselli..... | ℥ ij.   |
| Vitellus ovi.....            |         |
| Misce et adde.....           | no. j.  |
| Liq. potassæ arsenitis.....  | ℥ lxiv. |
| Syr. simplex.....            | ℥ ij.   |
| Aquæ destillatæ.....         | q. s.   |
| M. Fiat mistura, 3 iv.       |         |

Dose: one teaspoonful three times a day.—*Wilson.*

In eczema the indications noted by Hardy and McCall Anderson cannot be too closely followed. First, there must be no derangement of the digestive organs. Second, should the

pruritus increase, it is proof that the disease is not likely to be benefited by it.

In acute eczema its use is never indicated.

*Lichen*.—Arsenic is clearly indicated in cases where there is debility present, also in some of the obstinate forms in which other treatment has failed. The various preparations of arsenic can be made use of. Hebra recommends highly the Asiatic pills in the lichen ruber.

*Pemphigus*.—In some of its chronic forms arsenic is indicated, either alone or in combination.

III. *Diathetic, including strumous, cancerous, syphilitic, leprous (or true leprosy) and alphous (or lepra vulgaris) diseases*.—Alphous disease (*Lepra Vulgaris, Psoriasis*). Arsenic still maintains a prominent position in the treatment of this disease, especially in patients of a gouty or rheumatic diathesis. The rules laid down in reference to its administration by McCall Anderson cannot be too closely adhered to.

|                                |        |
|--------------------------------|--------|
| R. Sig. Potasse arsenitis..... | 3 ij.  |
| Ammonie carbonatis.....        | ʒ ss.  |
| Potasse acetatis.....          | ʒ j.   |
| Syrupi simplex.....            | ʒ ss.  |
| • Aque destillatæ.....         | q. s.  |
| M. Fiat solutio.....           | ʒ xij. |

Dose: a tablespoonful in a wineglassful of water thrice daily after food.—*Anderson*.

|                           |            |
|---------------------------|------------|
| R. Ammonie arsenitis..... | gr. jss.   |
| Aque destillatæ.....      | fl. ʒ iij. |
| Spiritus angelicæ.....    | fl. ʒ vi.  |

M. Dose: one teaspoonful, gradually increased to three, to be taken in some aromatic water.—*Beet*.

|                         |         |
|-------------------------|---------|
| R. Arsenici iodidi..... | gr. ij. |
| Potassii iodidi.....    | ʒ vj.   |
| Aq. cinnamoni.....      | q. s.   |
| M. Fiat mistura.....    | ʒ iij.  |

Dose: a teaspoonful three times a day in water.

## STRUMOUS DISEASES—SCROFULODERMA AND LUPUS.

*Lupus exedens—Ulcerative.* Arsenic is frequently indicated. Donovan's solution is one of the best preparations, but some prefer Fowler's and Pearson's solutions. Lupus is the only cutaneous affection in which *caustics* are recommended. Dupuytren's celebrated powder, although frequently applied as such, *does not* act as a caustic; if it has any virtue it is as an *alterative*. The milder escharotic powder of the French Codex, (Antoine Dubois) may be used. But arsenic is too *dangerous* as an escharotic and can be with perfect propriety discarded.

SYPHILODERMATA.—Arsenic has no therapeutical action on them.

*Leprous Elephantiasis.*—It is *said* that arsenic applied locally will sometimes cure.

|                         |            |
|-------------------------|------------|
| R. Acidi arseniosi..... | gr. x—xxx. |
| Axunge.....             | ℥j.        |

M. Rub in a patch six inches square until *pustulation* occurs. Treat patch by patch till the disease disappears. Administered internally it has entirely failed to arrest the disease.

IV.—HYPERTROPHIC AND ATROPHIC DISEASES.—Pityriasis.—It is only when this disease assumes a chronic and obstinate form that arsenic is indicated; it may be administered either alone or in combination with iodine.

*Kelis* or *Keloid*.—After improving the general health, a course of the iodide of arsenic is frequently beneficial.

V.—HEMORRHAGIC (PURPURA).—Arsenic is most certainly not indicated.

VI.—NEUROTIC OR NERVE DISORDER, PRURITUS, PRURIGO, ETC.—When they are not accompanied with gastric derangement, and the constitution is debilitated, a course of arsenic combined with tonics is frequently of great benefit.

VII.—CHROMATOGENOUS OR PIGMENTARY ALTERATION; LEUCODERMA.—Arsenic has sometimes been administered with success.

VIII.—PARASITIC, ANIMAL AND VEGETABLE.—Its power as a parasiticide is so great that its use would appear to be indicated; but we have fortunately other parasiticides which are certainly as effectual in the treatment of pediculi, scabies, tenia versicolor, etc., whilst in tinea favosa and tonsurans its local application might *destroy* the hair-follicles more *effectually* than the disease itself.

IX.—DISEASES OF THE GLANDS AND APPENDAGES OF THE SKIN—ACNE.—Arsenic alone or in combination with tonics and alkalies is frequently of undoubted benefit. But in this, even more than in any other variety of cutaneous affection, a proper hygienic regimen should *not be neglected*. It is especially indicated in acne rosacea, and acne mentagra, which has resisted all other treatment.\*

|                                |                 |
|--------------------------------|-----------------|
| R. Liq. potassæ arsenitis..... | 3 ij—3 iv—3 vj. |
| Liq. potassæ.....              | 3 ij—3 iv—3 vj. |
| Aq. destillatæ.....            | q. s.           |
| M. Fiat mistura.....           | 3 iij.          |

Dose: a teaspoonful after each meal, in milk or water.

There have been many more formulæ recommended, but enough have been given for all practical purposes. I have not alluded as yet to arsenical mineral waters. One of the principal ones is the Dominique spring of Vals (France), but I believe that its action in eczema, psoriasis, and prurigo, is due to the sulphuric acid it contains, rather than to the arsenic.

In conclusion, too much stress cannot be laid upon the decided preference which should be given to all formulæ and preparations that do not contain iodine or mercury, as the action of these is entirely distinct from that of arsenic; and when it is advisable to give them at the same time during a course of treatment, they can be administered separately and at intervals.

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\* Braithwaite's Retrospect, Part LII.

## Clinical Contributions.

### A CASE OF PRURIGO FEROX UNIVERSALIS, WITH REMARKS.\*

By EDWARD WIGGLESWORTH, JR., A.M.; M.D. (HARV.)

I CLAIM for this case that it is in some respects unique; that it is *possibly* the first case of the kind occurring in America indigenously; *probably* the first case ever recognized in this country, and *certainly* the first one ever reported on this side of the Atlantic. And here be it distinctly understood that when *prurigo* is spoken of, *pruritus* is not meant, except as diarrhœa may be meant when Asiatic cholera is spoken of. Pruritus is a *symptom* merely; a symptom of many very different diseases and a symptom daily met with; prurigo is a *disease*, and an incurable one, rare in Germany, extremely so in France and England, and in this country thus far unknown.

Charles H., æt. 14. Born in Salem. Came to Boston in 1865. Parents always healthy, except that the father once had the varioloid. Healthy till eight months of age, "but a troublesome baby." At that age abscesses under arms and on face "as big as eggs." At two years of age was vaccinated, with the usual results. About the same age an attack of eczema capitis, lasting about one year. From eight months to six years, "abscesses off and on." Since then "boils," until about a year ago. No other general trouble before the age of six years, except an attack of measles. Itching was however noticed soon after the fifth year, and at six years it was quite severe. Since that time the patient has been almost constantly under treatment in Salem, and subsequently in Boston, with no improvement beyond temporary relief from any eczema which happened to result from scratching. About a year ago he took mercurial baths under the direction of a Salem cobbler, practising at present as a hydro-hydrargyropath in this vicinity. Seven baths were taken, each of one and a half hour's duration, with no result except great loss of strength. But from this date, and in the parents' opinion on account of the baths, the patient

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\* Read before the Boston Soc. for Med. Observation, Nov. 18th, 1872.

has failed gradually, the existent eruption has increased, become worse, and presented a different appearance from that which it had previously borne. Since the baths also the patient has tried "every patent medicine," and been subjected to the tender mercies of an indefinite number of irregular practitioners, constantly losing ground. In February last he took to his bed, and has continued treatments of various kinds without benefit up to the time when I was called in.

May 19th, 1872, my first visit to the patient, whom I found in bed. The mere removal of the coverings of his body caused him, he said, intense pain from contact with the cooler air of the room. He cried out, wept, writhed about unceasingly, contorting every limb, and tearing at his skin with finger and toe nails so as to cause bleeding. Until once more in bed, he could hardly answer questions intelligently or intelligibly.

The skin in general was of the color presented by the arms of rowing men at the end of the summer. All parts of the body which could be reached by the nails presented an oozing eczematous appearance. Eczema rubrum (madidans) of the throat and buttocks. The skin in general hard and dense, and very thick when pinched up by the fingers. Very dark also, even by comparison with the rest of the skin in those locations where the excoriations showed that the process of scratching or rather tearing at the skin had been most vehement and protracted. A generally diffused eruption of isolated subcutaneous papules of the same color as the skin. These when scratched protruded above the surface, became redder than before, and when their apices were torn off by the nails, exuded a yellowish drop of serum or a drop of blood. Small crusts resulting from the drying of these drops of blood were thickly scattered over the body. The skin was destitute of lanugo, which had been actually torn out by the nails. The furrows of the integument were deep and well marked on the fingers and backs of the hands, less so, though still abnormal, upon the wrist. Well-marked furrows also upon the insteps and ankles. In many places these furrows were bleeding fissures. Frequently also occurred pustules, and purulent crusts even, where the papules had been torn by the nails.

The scalp was free from papules, but the hair was dry, lustreless, and dusty in appearance. The face was thin, sallow, and haggard, the eyes sunken and marked by a deep bluish halo, the lips dry, and parched to desquamation and rhagades. A few papules were present also upon the face. So on the throat, which was raw in parts and partly covered with crusts, so that the head could not be turned from side to side without great pain and difficulty. The thorax was covered thickly and uniformly both before and behind with papules. So also the abdomen, which presented a larger and more abundant crop than one usually expects to find upon this region. Upon the sacral region, on the contrary, there were fewer papules than is common in such cases. The buttocks were as usual richly endowed with discrete papules, pustules, and blood-crusts.

The legs and arms, however, were the most severely affected, and of these the extensor surfaces. The forearms were more severely affected than the upper arms above the elbow. The lower extremities showed the most intense development of the disease, and of these the lower legs were more diseased than the thighs. The appearance presented by the lower legs was in fact characteristic of and peculiar to a case of true prurigo. In addition to the lesions elsewhere present, the darkened skin was as hard as a board, covered with a mealy dust, rough like a file, and giving rise to a crackling sound when briskly rubbed with the hand, and imparting to the sound hand thus applied in rubbing a peculiar pricking sensation plainly to be felt along the volar aspect of the fingers.

There was a general adenitis. The lymphatic glands in the groins were large and symmetrical, true "prurigo buboes." The armpits are usually unaffected, but this patient had enlarged glands in both axillæ as well as eczema rubrum. Eczema of the elbows was also present. So also the popliteal spaces, which usually in prurigo remain soft, smooth and healthy, showed a few papules and chaps and a thickened condition of the integument. The flexor aspect of the wrists, the palms and the soles were, as is generally the case, free from disease; but the groins, hams, and genitals, which usually escape, were affected, the last markedly so, when we consider that the customary eruption of these parts from disease in prurigo constitutes, in Neumann's opinion, a good diagnostic means between this disease and scabies, in severe forms of which the scrotum and penis rarely if ever escape.

The first object was of course to remove or mitigate the eczema, which would otherwise have presented an obstacle to the successful treatment of the disease, which treatment may be considered successful if the existence of the patient is rendered enduring; the disease, prurigo ferox universalis, being incurable. The patient was given a bath of luke-warm water and castile soap. He was then smeared from head to foot with Hebra's diachylon ointment, and the same universally and thickly applied on rags and bandages. Hydrate of chloral was prescribed at bed-time, and a course of cod-liver oil and iron entered upon. At the end of a week he was sufficiently improved to admit of the special treatment for prurigo.

May 26. The general eczematous condition much improved, as hoped for. Patient thinks the itching is somewhat less. In some slight degree, this may be due to the improvement in the eczema, and to the action of the ointment, but is more probably a mere coincidence or wholly imaginary. The patient has slept better and feels generally somewhat relieved, and confounds this condition of alleviation from torment with a cessation from itching. Pain still present on exposure to the air, and when undressing or getting up, which he has felt able to do for a day or two, his mother says his moans can be heard over the whole house. The neck is still quite raw,

but his general condition warrants us in devoting our chief attention henceforward to the prurigo rather than to the eczema.

The patient was accordingly directed to take a bath of luke-warm water and soft soap; to be mopped dry, not rubbed, with a soft towel; to go then immediately to bed, keeping the blankets instead of the sheets next the skin; to remain between these same blankets for a week, day and night; and to have his whole body thoroughly rubbed, night and morning, with Wilkinson's ointment as modified by Hebra; namely, a pound each of *sapo viridis* and lard, a quarter of a pound of prepared chalk, and six ounces each of flowers of sulphur and oil of beech. At the end of the week to get up if he pleased, but to take no bath for three or four days, until in fact he noticed that his skin was beginning to flake off; then to wash the whole body. The cod-liver oil and iron were continued. The chloral was now omitted, as under the influence of this ointment it was anticipated that he would be able to sleep, since the pruritus would be reduced to a minimum.

June 6. The patient himself opened the front door for me. He was less pale, and less dark and hollow-eyed. Still nervous and chafing his hands continually. Reports little scratching while in bed, and the general pruritus at present much relieved. Is more quiet, talks sensibly, and is willing to go through the same treatment for another ten days. Took his bath, as directed, yesterday, June 5th. Stated that the ointment produced smarting, also that he had been compelled to have a sheet under him next the skin, since the feeling of the blanket drove him wild. The glands of the groins and arm-pits less swollen, though there is still some eczema of the axillæ. The papules generally are less prominent, and there is moderate desquamation of the cuticle. The "branny" condition of the legs has disappeared; so also the confluent and even the smaller crusts. The raw appearances are now more localized and discrete. Skin still much infiltrated, and painful when the clothes are removed, but he is no longer heard by his parents when he gets up in the morning. Genitals nearly free from papules and eczema. Great improvement, more especially in the appearance of the papules upon the chest and abdomen, and the neck has improved so far as to permit of the patient's wearing a collar. He reports also that he has been able to sleep much better than before. The iron was omitted by request. Half an ounce of cod-liver oil *ter die* was prescribed, and he was directed to repeat his inunction course.

June 16. Patient reports less itching while covered with the ointment, but that for the last two days, since getting up from bed, the pruritus has been again quite severe, and his sleep restless and broken. He does not feel weaker, but his eyes are again dark and sunken. The general appearances of the prurigo are however more discrete, though in many places there is much exudation of yellow serum drying into crusts. I regard this, however, as no unfavorable sign, but rather as showing a tendency to ret-



regression of the pathological condition towards an earlier and less intense stage of the disease. The oleum morrhuxæ was continued, and one grain of carbolic acid added to each dose. The patient was ordered to be smeared with oil of cade, applied by means of a painter's bristle-brush, all over, and then to step immediately into a warm bath (98° Fahr.) and to remain there for two hours; this process to be repeated daily every night at bedtime for a week. The tar not to be rubbed off while in the bath or subsequently.

June 22. Saw the patient in company with my friend, Dr. Duhring, of Philadelphia, who is staying with me. Patient looked better, and even laughed. Reports itching diminished by day and sleep increased at night. Complains of burning from the application of the tar-oil, also of pain still, on exposure to the air. The raw and eczematous condition has improved, and in a few places the papules have apparently disappeared. There is still a little eczema of the scrotum, and a few papules in the popliteal space and in the axillæ. So also rather more upon the abdomen than on the chest. The legs are free from papules, but the skin is still thick and painful when pinched up. A few fissures on upper part of calves and on the wrists. Eczema of neck nearly well. Patient still rather nervous. The tar treatment was directed to be continued. The oleum jecoris aselli was to be given without the carbolic acid. *R.* Acid. carb. 3 iss.; ung. glycer-rhini et pulv. rad. althææ q. s. ut ft. pil. no. 100 D. S. 2 pills ter die.

July 7. Patient says he "feels good." The itching has diminished, though he still sleeps poorly. Bowels costive. Still some burning on exposure to air, chiefly in the legs. The tar still burns when applied, but much less than at first. Baths, formerly complained of, are no longer unpleasant. Exudation much diminished. Skin dryer and less raw; smoother also and whiter, especially in the folds of the knees and elbows. Castoria was allowed for the bowels. The oil of cade was directed to be diluted with one-third glycerine. Otherwise to continue treatment, and as the worst feelings were after getting up in the morning, the patient was directed to use at that time the following ointment:

|                               |          |
|-------------------------------|----------|
| <i>R.</i> Picris liquidæ..... | 3 vj.    |
| Pulv. camph.....              | 3 ss.    |
| Ung. zinci oxidi benz.....    | 3 iv ss. |
| Cerat. simp.....              | 3 j.     |

*M.* Ft. Ungt.

Laxative diet, fresh air, and exercise were recommended, as the patient is now able to walk out. Patient was again warned that the disease is an incurable one, and that his future comparative relief from suffering depended upon his own faithfulness in the continuance of the treatment, and told that it was no longer necessary for me to visit him, but that I should be glad to hear from him at intervals.

July 24. Patient presented himself at my office. He was stouter and

looked better in every way, talked freely, laughed and expressed himself as overjoyed at the results obtained by treatment.

Oct. 17. The patient's mother called at my office to say that "Charles had never been so well in all his life." She was warned that the disease varied in intensity, and would probably become worse as the winter set in; that she must not therefore be discouraged, but, on the contrary, adopt a rather more vigorous course of treatment. Since this time the patient has not been seen or heard from.

As this is not a description of a disease, but merely a report of a case, I will not enter upon the etiology, pathology, etc., of prurigo, but refer to the treatises of Hebra, Neumann, and others. I will merely add that prurigo is not hereditary, not contagious, and does not produce other diseases. It is not congenital, but appears in early infancy as wheals of urticaria upon the legs. It begins in earnest between the ages of five and seven years, and lasts through life. It is more common in males than in females, of more frequent occurrence in the ill than in the well-fed, is worse in winter than in summer, and may co-exist with any condition of health, or be complicated with any other disease. There is no dyscrasia, and the disease is not influenced by internal remedies. There is a general deficiency in the secretion of sebum. The special peculiarity of this case consisted in the presence, to some extent, of both papules and eczema upon the throat and in the arm-pits, groins, and popliteal spaces.

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## A CASE OF SYPHILITIC TUMORS OF THE SPINAL NERVES.

By FRANCIS DELAFIELD, M.D.

A MAN aged 46, a wood moulder, born in New York, single, was admitted to the Roosevelt Hospital, August 21, 1872.

He was a man of intemperate habits; had had gonorrhoea, and on several occasions sores on his penis, with buboes in the groin. About five years ago he had a sore on the penis, which seems to have been a hard chancre. Since the time when he had this last sore he has had pains in the body and legs, more severe at night, but no other secondary symptoms. About six months ago the pain in one of his legs was very severe; he took iodide of potash for some time, and was relieved by it. About two months ago his legs began to feel numb and to lose their ordinary strength.

His legs grew steadily weaker; his evacuations of *fæces* became involuntary; his urine was passed slowly and with effort.

When he was admitted to the hospital he was found to be a large, vigorous man, not at all emaciated. Sensation and motion are much impaired in both legs; most markedly so in the left leg. He can walk a short distance leaning on the shoulders of an assistant. The evacuation of *fæces* is involuntary and unconscious. He has no control over his bladder. There is a large bed-sore on the sacrum. Nodes can be felt on the cranium and right tibia.

The patient was treated with iodide of potash in increasing doses. His bed-sore and his general health improved, but the condition of the legs, bladder, and rectum remained the same.

On September 9th, erysipelas commenced in the bed-sore and extended down on the left thigh and leg. There was a good deal of constitutional disturbance; the patient grew rapidly weaker, and died on September 18th.

**AUTOPSY.**—The head.—At one small point at the vertex of the cranium the *dura mater* is adherent to the bone, and the latter is slightly eroded. The brain and its membranes seem to be normal.

The heart, lungs, liver, and spleen present no lesions.

The kidneys are of medium size. In both of them are a number of small white spots, each surrounded with a red zone—suppurative pyelonephritis.

The bladder contains urine mixed with blood, pus, and fibrine. The mucous membrane of the bladder is blackened, and coated with fibrine.

There are several nodes on the anterior surface of the right tibia.

The spinal cord is unchanged throughout its entire length. In the large nerves, however, which form the *cauda equina*, opposite the anterior and left side of the cord and about two inches above its termination, there is a small tumor, about the size of a pea, of yellow, cheesy appearance. Several of the spinal nerves are matted together in this tumor, and the *dura mater* is adherent to it. About two inches below this point several of the nerves adhere together, but do not form a tumor. At both these points similar changes have taken place. In the nerves least affected there is simply a thickening of the connective tissue which separates the nerve fibres. In those in which the process is farther advanced, this thickening is accompanied by a growth of small round and oval cells; there is also a cell growth between the bundles of nerve fibres forming each nerve. Finally, cheesy degeneration has taken place, converting the new tissue and the nerve fibres into a mass of granules.

## Reviews.

### VENEREAL ULCERATIONS OF THE CERVIX UTERI.\*

To those who have had opportunities of studying the more recent medical literature of France and Germany, it is well known that many of the best productions of the younger leaders in the art and science of medicine are to be found only in brochures and monographs that have but a limited circulation in our own country. These publications usually contain the results of observations of a practical and clinical character. They emanate from the rising and progressive men who are either attached, or who expect to be attached to the public institutions of their respective countries. The well-established rule in Europe which forbids the appointment of any physician or surgeon to any responsible position in any of the public institutions until the applicant's fitness is beyond question, has been the means of securing the best talent of the state for the benefit of the profession and the public, and creating at the same time an honest rivalry between those who seek public honors. For the purpose of establishing a good claim of fitness for a public appointment many of these brochures are published and presented to the scientific world. Both the plan and the purpose are excellent. One of the best results arising from this system is seen in the large number of accomplished rival experts attached to the different hospitals and schools. The progress of medicine depends on the clinical and experimental researches of reliable and well-educated men. It must be confessed that in this country we are deficient in this class of scientific toilers. The present system of making appointments in our hospitals will account for this. A few hold or control all the appointments in the hospitals of this country, and the scientific attainments of the applicant are

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\* *Étude sur les ulcérations du col de la matrice et sur leur traitement, par Henri Despeyroux, Docteur en Médecine de la faculté de Paris. Avec une planche en chromo-lithographie. Paris, J. B. Ballière et fils. 1872.*

too often regarded as of secondary importance. The young men who are disposed to do good work in the common interests of science realize too well the slender chance of reward unless backed by influences which we do not care to mention—but the work is not done. These reflections are forced upon us when we take into consideration how little is accomplished in this country, and how much is done in other countries by those who are superior only in their application—stimulated by good prospects of a recognition of their labors.

In the brochure before us M. Despeyroux presents an exceedingly interesting description of venereal ulcerations of the cervix uteri. The work is mainly an account of the experience and views of M. Fournier on this interesting lesion. While it must be admitted that chancres \* are seldom seen on the os or about the cervix uteri, we are nevertheless of the opinion that they occur far more frequently than we are led to suppose—if we base our judgment on the number of recorded cases.

In speaking of the pathology of chancre of the cervix, Fournier states, that it either forms a smooth or a papular lesion, commencing with an absolutely smooth erosion, more frequently tends to terminate in a papule—a small nipple with a flattened apex, slightly raised above the neighboring parts. This papular lesion can be well demonstrated by taking a cast of it. The chancrous erosion or papule is smooth and even. A well-marked characteristic of this form of sore is the gray tint of a lardaceous gray, which may be compared to a section of a scirrhus tumor—a tint which it is needless to state is very distinct from the color of the surrounding structure. This gray tint borders on a grayish white, or even a dead white; at other times the chancre is of a grayish yellow or buff color, covered with red dots, but more commonly the chancre of the cervix is gray, whitish gray, opaque gray, or lardaceous gray, a coloration apparently due to a pseudo-membranous coating covering the fundus, and somewhat adherent to it. A chancre of the cervix

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\* The reader will observe that we adopt the French system in speaking of chancres. By simple chancre we allude to the non-specific sore, known to most English readers as chancroid, and by true chancre to the true indurated sore followed by constitutional manifestations.

is properly not more circumscribed than a chancre situated in other parts. It is either continuous, on a level with the surrounding structure, or when slightly raised it joins them by a slightly inclined plane. Its periphery is usually marked by a small purplish ring, which makes more manifest the whitish pale aspect of the central portions of the lesion.

M. Despeyroux discards M. Bernutz' classification and divides syphilitic ulcerations as follows: I. Simple chancre. II. Infecting chancre. III. Mucous patches; and adds that the syphilides might be included. According to M. Alphonse Guérin the chancre generally appears outside the orifice of the cervix, and more frequently on the anterior lip—the immunity of the posterior lips being due to the flow of albuminous mucus from the uterine cavity, which protects it from the virus.

The chancre of the cervix is considered rare. M. Clerc only mentions one case out of one hundred and thirteen of various regions. M. Carrier does not even cite it. In most of the works on Gynæcology the subject is either neglected entirely or only spoken of in a cursory and exceedingly unsatisfactory manner. Dr. Grailey Hewitt devotes but a few lines to its consideration, and erroneously asserts that "chancre of the os or cervix uteri presents an appearance like that of chancre observed elsewhere." In his work on the uterus, Dr. Bennett states that in his own practice it has been rarely met with. Becquerel, whose experience at the Lourcine Hospital was very large, states that syphilis may present itself in the form of ulcerations of the cervix, but instances no special cases.

Bernutz states that true chancres may occur on the cervix and even in the cervical cavity. He also describes a form of diphtheritic chancre which is the most frequent, having occurred, according to his experience, seventeen times in twenty-four cases. He also remarks that these chancres are rarely indurated, may be inoculable, are accompanied by buboes, and followed by all of the consecutive accidents. The ulcerative chancre he found most rarely, meeting only one in twenty-four cases. These occur principally around the orifice, producing an erosion and leaving an infundibuliform orifice. This variety resembles the phagedenic chancre, and is also inoculable.

M. Gosselin states that syphilitic ulcerations in this region readily lose, even in the absence of all treatment, their primary characteristics.

Dr. T. G. Thomas has met with but one case of chancre of the cervix which was proven to be such by inoculation.

Dr. Fordyce Barker, whose experience in the treatment of uterine affections at Bellevue Hospital has been very large during the past eighteen years, has seen six cases of chancres of the cervix. We regret that we have been unable to obtain the full particulars of these cases, for they would have been of great value, coming from such an accomplished observer and practitioner.

M. Robert first described the tendency of cervical chancres to become covered with a false membrane; this observation was subsequently corroborated by Bernutz.

In the examination of more than one hundred women suffering from venereal ulcerations, I saw only two in whom the cervix was the seat of the primary lesion. It must not be forgotten, however, that of the number of females who present themselves for treatment at our public institutions, but a small proportion seek advice while suffering from primary infection. This, I think, will account for the disproportion in the number of chancres seen in this locality. In one instance the chancre was situated on the left posterior side of the os, and in the other both lips were involved—the lesion embracing nearly two-thirds of the entire surface of the os.

Förster called attention to the fact that syphilitic ulcerations sometimes destroy tissue so freely as to penetrate into the bladder and the rectum. This leads us to infer that there is an extraordinary tendency in these parts to the disorganization of tissue.

Fournier has met with thirteen chancres of the cervix in two hundred and forty-nine chancres of the genitals. In one of the above-mentioned cases, seen also by Despeyroux, there were also chancres of the vagina. The experience of Fournier is widely different from that of Guérin; while the latter maintains that the chancre occurs most frequently on the anterior lip, Fournier asserts that it attacks them indiscriminately, and frequently both lips at the same time; he has also seen a

chancre which extended into the cervical cavity. The nature of the sore was established by inoculation. While there is no positive evidence of the existence of any true chancres in this locality, it is nevertheless quite possible that they may occur, although clinical experience has not yet established the fact. There is seldom more than one chancre of the cervix. Fournier has seen but two cases in which there were two sores. According to M. Fournier chancre of the cervix is developed in the following manner: "It is invariably indolent in character. It causes no pain. There are no symptoms indicating its existence. In no one of the cases did the patients complain of any pain or annoyance; they came to the hospital for other reasons—one for herpes of the vulva, one for vaginitis, one for vegetations, another for secondary lesions. Fournier very properly remarks that the cervix is naturally hard, and questions the possibility of detecting a morbid induration on an organ normally hard. It is at times exceedingly difficult to make a satisfactory digital examination. When practised with the utmost skill it will often fail to furnish any precise indication of the true condition of the parts—whether it be an induration or a simple hypertrophy of the organ. When the healing process commences in the uterine chancre it rapidly modifies the appearances of the ulcer and cicatrization soon follows. It is at this period of the disease impossible to form a differential diagnosis between the chancre and the more common forms of ulcerations and erosions which are so frequently met with about the cervix uteri.

In this form of primary accident the bubo affords no assistance in the means of diagnosis; for in these special cases it manifests itself only in the pelvic ganglia. *This will account for the appearance of many forms of syphilis in the female which seem to commence with the well-understood secondary manifestations.* This is a clinical fact of importance, and scarcely appears to have been appreciated by many of the authors of works on syphilis. The following additional clinical observation made by Fournier is of value in the differential diagnosis of these ulcerations—the consideration of the concomitant ulcerations of the vulva. The true chancre exists alone on the cervix



without any lesions of the vulva; the simple chancre, on the contrary, is accompanied with lesions of the vulva, and whether they be simple chancres or indurated chancres their true character may be determined.

The following table by M. Fournier illustrates clearly the means of arriving at a differential diagnosis between the two forms of chancre of the cervix uteri.

I. TRUE CHANCRE.

II. SIMPLE CHANCRE.

I. EQUIVOCAL SIGNS.

I. Usually solitary on the cervix, rarely multiple.

I. Solitary or multiple, frequently solitary by the fusion of several neighboring chancres.

II. Usually limited in extent.

II. Usually moderately large.

II. PROBABLE SIGNS.

III. Always erosive or papulo-erosive, never ulcerative.

III. Occasionally ulcerative, serrated; also frequently papular, but with unevenness of the surface, depressions and anfractuositities.

IV. Having an opaline, grayish tint and pseudo-membranous.

IV. Having a yellow or yellowish coloration, of a brighter, livelier tint than the dark gray of the true chancre.

III. POSITIVE SIGNS.

V. Coincidentally at the vulva, or absence of any lesion, or a true chancre.

V. Coincidentally at the vulva—almost infallibly; simple chancres more or less numerous. In some cases, even simple chancres of Douglas's cul-de-sac.

RESERVATION MADE FOR THE POSSIBLE, NOT EXCEPTIONAL OCCURRENCE OF A DOUBLE INFECTION.

VI. Auto-inoculation negative.

VI. Auto-inoculation reproducing a simple chancre.

We have now only to refer to the following conditions in forming a diagnosis in this special class of cases,—mucous syphilides, herpes, and the erosions of endo-metritis may simulate a chancre. M. Fournier thinks that herpes is rarely seen:—it forms somewhat large, flat, superficial, and reddish erosions, which become opaline through the separation of the epithelium. They are recognized, by two characteristics—one, the polycyclical

form of the periphery of the erosion, which is a true characteristic of herpes; second, the existence of other miliary rounded and well circumscribed erosions, of a markedly herpetic nature, around the periphery of the principal erosion.

The erosions of endo-metritis radiate from the orifice of the cervix, especially on the posterior lip, and more frequently extend into the cervical cavity. They are reddish, frequently granular, and do not become covered with a grayish and pseudo-membranous coating. There is also a muco-purulent discharge and menstrual disturbances. The chancre of the cervix, on the contrary, does not extend into the cervical cavity, and specifically presents the features we have already described, nor does it cause any pain or excite any appreciable discharge.

The treatment, of course, depends on the general condition of the patient, and the local indications which may be presented. In conclusion, we have only to add that the brochure which suggested this review affords a very complete and carefully drawn history of the various forms of ulcerations of the cervix. In the differential diagnosis nothing has been neglected which could throw light on the primary venereal lesions in this locality. It is a contribution of much practical value to all who are likely to be called upon to treat this class of affections.

M. H. HENRY, M.D.

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#### HEBRA AND KAPOSI ON DISEASES OF THE SKIN.\*

WITH the close of 1872, it is our pleasure to chronicle a most important and welcome event in the dermatological world,—the appearance of another *Lieferung* of “Hebra upon Diseases of the Skin.” It will be remembered that it is not quite two years since the last *Lieferung* was issued, comprising hypertrophies and atrophies; and now the present volume takes up the eighth and ninth classes, to which some two hundred

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\* *Hautkrankheiten*. Von Prof. Hebra und Dr. Moriz Kaposi, Virchow's *Handbuch der speciellen Pathologie und Therapie*, III. Band, II. Theil, II. *Lieferung*. Erlangen, 1872.

and eighty pages are devoted. The work is published under the names of Hebra and Kaposi, though the latter is the author of the whole, Prof. Hebra having given Dr. Kaposi the privilege of completing the treatise he began some years since. Familiar with the name of Moriz Kohn, Kaposi falls rather oddly upon our ears; but we are told officially on the first page that Dr. Moriz Kohn has recently changed his name to Moriz Kaposi, and under this title we are to know him for the future! Kaposi, by the way, is the Hungarian for Kohn, a German name, and doubtless reasons of a private nature have necessitated this change.

It will be our purpose here to offer a short and concise analytical review of the volume, with a view of affording merely an insight into the subject-matter and the method of the same; while, for an intimate knowledge of the work, we would ask the reader to peruse the original, a task which we feel sure will amply repay him for his time. Our author opens with remarks upon the new-formations in general, and at once a division is made into *benign* and *malignant* new-formations, corresponding to the neoplasmata and pseudoplasmata of Hebra's original classification.

Class VIII., "Benign New-formations," is made to include three distinct pathological processes: connective tissue new-formations, vascular new-formations, and cell new-formations. Under connective tissue new-formations, the first disease introduced is keloid, in the form of an essay, which Dr. K. tells us has already appeared in the *Med. Wochenschrift*, 1871. A short account is given of the history, beginning with Alibert, to whom is accorded the honor of having first accurately described the affection. In proportion to other diseases of the skin, keloid is stated to be a rare manifestation, occurring in Vienna, according to the statistics of Hebra, once in every two thousand cases of other skin diseases, which proportion perhaps corresponds with statistics in our own country; while, on the other hand, Wilson, in London, makes the disease occur once in every two hundred cases! Speaking of its development and course, Dr. K. states that only in a few instances is it recorded that a spontaneous retrogression of keloid has taken place. A case

which came under the observation of Hebra is related. Two sisters affected with keloid were under his care, in one of whom there were a number of tumors in various stages of retrogression, and which eventually completely disappeared. The disease in both of these patients was situated on the back, and had begun in acne cicatrices. Hebra further ascertained that a third sister and the mother had also suffered from the same growths, and that in both of these the tumors had entirely disappeared. Keloid occurs more often at the middle age of life; rarely before puberty, and is found to be as frequent in the one sex as in the other. Concerning the ætiology, attention is drawn to some of the causes which at times give rise to keloid, as, for instance, severe or even trivial abrasions and irritations of one kind or another of the surface. A most interesting chapter on the anatomy of keloid now follows, wherein the line between spontaneous or true keloid and cicatricial or false keloid, and hypertrophic cicatrix is strictly drawn, the anatomical appearances, according to our author, being quite different. Microscopical examinations prove that idiopathic, spontaneous, or true keloid presents certain peculiar appearances which distinguish it from cicatricial keloid and hypertrophic cicatrix, and that cicatricial or false keloid presents a combination of true keloid with cicatricial tissue, and therefore is deserving of the name cicatricial-keloid, or consecutive-keloid.

In regard to treatment nothing is proposed, excision and the use of caustics being condemned; though cases are reported where the disease has not returned. We now arrive at a carefully written essay on cicatrices of the skin, constituting one of the most exhaustive chapters of the book, and at the same time evincing a thorough knowledge of the subject. So-called characteristic scars are discussed at length, and the conclusion arrived at that, "*sensu stricto*," there are no characteristic cicatrices. This view is also entertained by Hebra. The formation of scars is considered, and the processes of granulation and epidermis-formation referred to, putting forth the most recent investigations of pathologists in this direction. Transplantation of skin is also accorded its place; and the treatment in general of granulating surfaces, together with the various

means known for obtaining good-looking cicatrices, is stated in a satisfactory manner. This whole chapter is full of interest, and makes the most complete paper upon skin cicatrices with which we are acquainted. The thoroughly scientific way in which the subject is treated must entitle it to the highest consideration.

*Molluscum Fibrosum.*—The fibroma molluscum of Virchow usually develops itself, according to our author, in early childhood; but it is probable that new tumors also arise in later life. Passing on to the ætiology of this affection, we are told that we neither know the remote nor direct cause of its production, and that it occurs in both men and women of various races. Although Virchow relates the case of an individual whose father and grandfather, and his brothers and sisters were affected with these tumors, yet we are by no means warranted in pronouncing it to be hereditary. Hebra has brought to notice an interesting observation concerning a large number of molluscum fibrosum patients. He has noticed that, in all the cases which have come under his care, the patients were more or less stunted in growth, while their minds were heavy and obtuse. Of course, an explanation of this curious statement is not offered, the fact merely being given as worthy of note.

*Xanthoma*, the name preferred by the writer, known also as vitiligoidea and xanthelasina, is next considered. To Rayer is given the credit of having first described this condition. Following Addison and Gull, who were the first to give a clear account of the affection, Kaposi recognizes two forms,—xanthoma planum and tuberosum. The simultaneous occurrence of icterus with this disease is freely discussed, and the conclusion drawn that icterus is merely coincident, and that xanthoma is in no way dependant upon icterus. With regard to the therapy, there is but one method worthy of recommendation, and this, excision, care being taken to remove the growth thoroughly, inasmuch as the new-formation is closely felted together and cannot be squeezed out. We now come to vascular new-formations (gefässneubildungen), and here the division is made into blood-vessel and lymphatic new-formations. The blood-vessel new-formations, or angiomata propria, are discussed as telangiec-

tasis, nævus vascularis, angio-elephantiasis, and tumor cavernosus. Telangiectasis is designated as an enlargement and new growth of the capillaries and finest blood-vessels, acquired after birth. Two kinds are recognized,—the idiopathic and symptomatic. Excision with a fine scalpel, as in rosacea, followed by a styptic solution of iron or silver, is recommended as the best procedure for the removal of these blemishes, especially when they occur about the face. If properly excised, the little wound heals without leaving a scar of any consequence. Nævus vascularis, or mother's mark, next receives attention; and the various means employed for the removal of these unsightly growths is entered into at length, making a useful chapter for reference. Angio-elephantiasis and tumor-cavernosus finish the chapter, and new growths of the lymphatic system are taken up. Under the name *lymphangioma tuberosum multiplex* is given a diseased condition of the skin which has never heretofore been described, one case only having ever been seen by the writer. The disease occurred in a woman, thirty-two years of age, otherwise in good health, and was for some time under observation in the wards of the General Hospital at Vienna. The general appearance of the affection closely resembled a well-marked papular syphilide, with the exception that it lacked the sharp outline and the usual evolution of the syphilitic papule, accompanied by the formation of scabs or crusts. The epidermis, on the contrary, was everywhere evenly smooth, and the skin itself, with the exception of the elevation and redness, or a few injected vessels on the papules themselves, seemed normal. The patient declared that she had been affected with the disease since her childhood, nor had she noticed any change in the appearance or number of the papules until lately, when new ones had begun to show themselves. She remained under treatment for some time, using various therapeutical means without effect. One of these papules was excised, and a careful microscopic examination made by Drs. Kaposi and Biesiadecki. The result, together with two wood-cuts, showing the formation of the papule and the alteration in the skin, is given in full, which may be summed up as follows: The tissue was permeated by numerous irregularly rounded holes, which were more plenty in the lower

layers of the corium. All of these openings possessed a defined wall of considerable thickness, with a stiff and resistant appearance, in which cells could be detected. These spaces were empty, excepting here and there bodies resembling white blood-corpuscles were found. The blood-vessels were of normal diameter and did not appear altered. The papillary layer and the epidermis seemed normal. These numerous spaces, or vessels as they were found to be, were lymphatics, and were considered as new and pathological formations. A somewhat similar case—that of Macrochilie—is described by Billroth in his *Beiträge zur pathol. Histologie*.

Under the head of Cell new-formations are arranged *Rhinosclerom*, *Lupus Erythematosus*, and *Lupus Vulgaris*. In 1870, Hebra first described a certain diseased condition to which he gave the name Rhinosclerom, a full account of which appeared in the *Wiener Medizinische Wochenschrift*.<sup>\*</sup> Up to the present time, Hebra and Kaposi have met with thirteen examples of this singular formation, which they define as follows: It presents itself in the form of flat, or somewhat elevated, sharply defined, isolated, or confluent, papules, forming raised or flat patches of unusual hardness, occupying the skin or mucous membrane of the alæ of the nose or the septum of the nose, together with a portion of the upper lip. The color may be either normal or darker than usual, while the epidermis is dry and fissured. Here and there are found deep rhagades, which secrete a small amount of fluid, viscid and sticky in character, which is apt to dry, forming yellow adherent crusts. The remarkable hardness of the patch is characteristic of the disease, feeling not unlike a plate of ivory. The skin adjoining the abnormal condition is perfectly healthy and never shows signs of swelling, œdema, or inflammation. It is emphatically a chronic affection, beginning without pain or other accompanying symptoms. The nodules do not undergo any change, neither breaking down in their substance nor ulcerating on their surfaces. The disease is painful upon pressure, and difficulty in breathing is experi-

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<sup>\*</sup> A translation of this article appeared *in extenso* in the April, 1870, issue of this Journal.—ED.

enced when the nares are involved, the patient being obliged to breathe through the mouth alone. A wood-cut, of no great artistic merit, is presented, delineating Rhinosclerom "in situ" upon the nose and upper lip of a patient. Two other cuts, showing the microscopic character of the formation, follow, which by no means add to the beauty of the page, being poorly drawn. In a standard work like the present, illustrations, if offered at all, should be of superior execution, and above criticism. Histologically the appearances under the microscope resemble the small-cell or granulation-sarcoma of Virchow and Billroth.

We now come to *Lupus Erythematosus*, a disease which Dr. Kaposi has carefully studied, and discussed at length in several of the late numbers of the *Archiv für Dermatologie und Syphilis*. Passing on to the therapeutics, our author speaks greatly in favor of external treatment, having obtained but little benefit from internal remedies. Nothing new, we believe, is brought forward here, except the method of multiple scarification, which Volkmann has recommended for *Lupus Vulgaris*. This procedure has been tried against *L. Erythematosus*, and is said to have been of some use, but the result does not appear to have been satisfactory.

*Lupus Vulgaris* occupies a considerable portion of the volume, some fifty pages, and is by all means the most complete and valuable essay on this disease which our literature possesses. To enumerate the various points which are brought to notice would be beyond the field of a review; suffice it to say, that all are given due attention at the hands of our writer. We know of no work which affords so clear a conception of this formidable disease; but it must not be forgotten that Kaposi treats of *Lupus* as he finds it in Austria, where it exists in its worst forms. The distressing cases of *Lupus* that one meets with in South Germany, and particularly in Austria, are rarely encountered in America. With us here the disease appears as quite a different type, not so virulent and more amenable to treatment. Especially worthy of mention, in this interesting monograph, are the chapters on the anatomy of *Lupus*, and on the various remedies employed for the external therapy. The Vienna school tell us that they have tried in vain all the vaunted



medicines, and that for the cure their whole force is centred in external remedies.

The ninth class of Hebra embraces the malignant new formations, including *lepra*, *carcinoma*, and *sarcoma*. Dr. Kaposi first takes up *lepra*, and we are glad to see that he adopts this name to the exclusion of others, for the nomenclature of this disease has been so multiplied that the profession at large scarcely know which term to retain. *Lepra*, as understood by Hebra and the writer, is the disease variously called elephantiasis Græcorum, leprosy, spedalskhed, etc., etc. As is well known in England, and even here in America, the word *lepra* is often erroneously used to mean psoriasis as well as leprosy, and as a consequence confusion of disease and nomenclature both exist. Our author endeavors to rectify errors, and gives an excellent account of the early history, going far back into the first days of literature, and presenting an exhaustive bibliography. Agreeing with other observers, he divides the disease into three forms: *L. tuberosa*, *L. maculosa*, and *L. anæsthetica*. In the chapter on the microscopic anatomy we have the researches of Daniellsen and Boeck, Carter, Virchow, and others. Under the microscope, the new-formations in the skin closely resemble lupus. Concerning the treatment we learn nothing new, our author summarily enumerating the many vaunted remedies, and stating that the only plan of therapeutics of any value is the one directed against the general condition of the patient. Dr. Beauperthuy's method of treatment is not even referred to, but it is probable that the correspondence connected with Dr. Beauperthuy's plan of treating *lepra* was published subsequent to the writing of the present paper.

*Carcinoma* is defined as a new-formation which shows, in the old clinical sense, a malignant character, and consists of a mass of proliferating, epithelial cells arranged in the form of alveoli, villi, or tubules imbedded in an inflammatory and infiltrated stroma of connective tissue. *Carcinoma* of the skin is divided into *epithelioma* and *connective-tissue cancer*. Kaposi distinguishes three forms of *epithelioma*: flat, deep-seated or nodular, and papillomatous; while the *connective-tissue cancer*, he considers under the names *carcinoma lenticulare*, *c. tuberosum*, and

c. melanodes. The subject is well worked up, and offers us, in a condensed and acceptable form, the latest views concerning the pathology, as well as some valuable suggestions as to the use of caustics rather than the knife, for certain forms of the disease. Under the title *sarcoma cutis* we have the histories of five cases which came to the notice of the writer, and which he designates with the name of *idiopathic multiple pigment-sarcoma* of the skin.\* From the notes of the cases we obtain the following description of the disease. Without any general or local cause, papules, varying in size from a pea to a hazel-nut, of a brown or bluish-red color, develop themselves in the skin. Their surface is smooth, and they have a thick, elastic consistence, with occasionally some swelling. Sometimes they are isolated, and rounded in form, or again they group themselves and remain as flat papules, in which case the central ones of the patch undergo evolution and occasion a cicatricial, dark-pigmented depression. The nodules appear first, as a rule, on the soles and backs of the feet, and later on the hands, where they develop in great numbers. As the disease progresses, isolated and grouped papules show themselves here and there upon the arms, legs, face, and body. The nodules, in a later stage, take on ulcerative action, gangrene itself setting in. The lymphatics are not swelled to any extent. Ultimately these papules appear upon the mucous membrane of the larynx, trachea, stomach, intestinal canal, and also in the liver. The disease terminates in death, and usually within the space of two or three years.

Here, we reluctantly add, closes the volume which we have been considering, and the writer takes leave of us, we trust for a short time only, for there is yet another *lieferung* due before the work is complete. In conclusion, we would briefly remark that the present volume throughout is written in a masterly and scholarly style, and is worthy in every respect to take its place with those which have preceded it.

LOUIS A. DUHRING, M.D., PHILADELPHIA.

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\* A full description of this disease and an account of the cases appeared in the last number of this Journal—October, 1872.—ED.

## Selections from Foreign Journals.

### ON THE EARLY SYPHILITIC AFFECTIONS OF THE BONES.

By CHARLES MAURIAC, M.D.,

*Physician to the Hôpital du Midi, Paris.*

TRANSLATED FROM THE GAZETTE DES HOPITAUX, BY DR. M. H. HENRY.

SYPHILIS is a constitutional disease essentially virulent, at least in the early stages of its evolution. It is the product of a true poisoning. The virus of syphilis has unlimited power of developing itself in a latent manner in the animal economy, the mysterious nature of which is still unknown. There appears to be some analogy between the course of this disease and the phenomena of fermentation.

An infinitesimal quantity of syphilitic virus once introduced into the circulation invariably causes, after a more or less extended period of incubation, a course of morbid action which proves and establishes the infection of the organism. It is so thoroughly established that it possesses, and preserves for a long period, the power of reproducing syphilis in another organism, either by contagion or by inoculation, if the organism so exposed has not previously been subjected to the action of this poison.

The general infection of the organism progresses rapidly, whatever its gravity, form, locality, favorable or unfavorable tendencies, resolute or destructive sequelæ. No parts of the body can escape it. It penetrates the whole structure; no tissue, no organ can escape it, not even the most inert and inferior of the anatomical elements, or of those least acted upon in the vital phenomena and changes of life. How could it be otherwise while the blood flows through and nourishes all the organic molecules—serves as a vehicle to the virulent principle, and, so to speak, saturates itself with it—becoming as contagious and inoculable as an indurated chancre or a mucous patch? Although the proof, by experiment, of the virulence of the blood is of recent date, Hunter admitted that the venereal poison, after having entered into the circulation, spread itself throughout the whole organism and infected all with equal force. This great pathologist, whose doctrines have

exerted so great an influence on the progress, and unfortunately as well on the errors, of modern syphilography, stated that the venereal poison "is not determined to any one part more than another by any general or particular power in the animal machine; nor is the nature of the poison such as will fall more readily on one part of the body than another, when they are all in similar circumstances." It is, therefore, evident that no anatomical conditions, nor any condition of special structure, shield the tissues from syphilitic infection. I know of no function in the economy which possesses the power of preserving certain portions of the organism from the attacks of the virus, either by absolute, relative, or variable immunity, according to the different phases of the constitutional affection. The moment the virus has proliferated itself sufficiently in the blood, to render it virulent, and capable of impregnating under this condition, all the organic molecules, tissues, organs and organic systems, whether similar or not, find themselves in a fit condition to contract the morbid phenomena. Therefore, if the syphilitic infection be viewed from the *topographical* and *chronological* manifestations it develops, the elements of a rational classification are wanting. The division of the consecutive accidents of syphilis into secondary, tertiary, or even quaternary periods, is artificial and arbitrary, and is no more applicable to syphilis than to other constitutional diseases. I will demonstrate, further on, that a less empirical principle of classification must be sought, for none of the physiological laws which govern the development, the nutrition, the structure, and the functions of the tissues, and the special organisms, can be invoked in favor of the famous topo-chronological division.

If well authenticated facts did not form the basis of the *a priori* and theoretical considerations, they might with reason be regarded as fanciful. I therefore purpose to expose, analyze, and comment on the early tertiary accidents which have fallen under my observation in the first period of syphilitic infection, *even before* the manifestation of the secondary accidents, and occasionally so close to the period of infection that the chancre was scarcely healed. What becomes of the famous syphilitic triad, if the tertiary accidents can develop themselves at the same time, or even precede the secondary manifestations? I have observed in the early period syphilitic manifestations usually regarded as belonging to the later period.

The fact that in the early stages of syphilis the blood acquires all the contagious and inoculable properties of syphilitic virus is one of the most important in the history of the disease. This has been established beyond a doubt by the remarkable experiments of Pellizzari made in 1862. Waller

had previously obtained a positive result in inoculating a woman with blood taken from a syphilitic woman, but as the skin of this woman was literally covered with syphilitic maculæ, the experiment is not as conclusive as that of Pellizzari.

I have recently observed a case of contagion through the blood which would have removed all doubts from my mind, if I could have entertained any, after reading the accounts of the experiments of Pellizzari. It is clinical evidence in support of experimental proof. A man who remained in Paris during the Prussian siege, and had sent his wife to the country, contracted, near the latter part of 1870, a chancre, for which he consulted me. An erythematous roseola, crusts in the hair, specific adenopathies, mucous patches of the throat, and other constitutional manifestations subsequently developed themselves. I subjected him to a mercurial course of treatment, and on the return of his wife to Paris, in the latter part of February, 1871, all the cutaneous eruption and mucous patches had disappeared. The chancrous induration had almost entirely subsided. This man asked me whether he could cohabit with his wife. I enumerated to him all the dangers, and remarked to him that the blood itself was contagious, and that he incurred the risk of infecting his wife if an abrasion occurred during intercourse, permitting the flow of a few drops of blood. I did not believe entirely at the time I gave him these instructions that contagion would take place in this way. It did occur, however. Two days after coitus with his wife, the man came to me very much alarmed, telling me that an abrasion occurred during the sexual act, and that blood had flown from the abrasion. I could find no traces of mucous patches, nor, in fact, any syphilitic lesion of any character on his genitals. Nevertheless, in three weeks he brought his wife to me, on whom I found at the outlet of the vagina a chancre, which was followed by moderately severe consecutive accidents, for which I treated her. It was evident to my mind that this woman was infected through the blood of her husband (notwithstanding the ridicule I may incur by my credulity, I feel convinced that her sexual relations were confined to her husband), and called tertiary, occurring at the inception of syphilis in the bones and the periosteum, in the splanchnic viscera, in the muscles—in a word, in nearly all the constituent parts of the organism. Such is my reason for having stated that there is at the same time generalization and simultaneity in the action of the syphilitic virus.

The only subject of these contributions will be the early manifestations of syphilis of the bones.

#### FIRST PART—EARLY MANIFESTATIONS OF SYPHILIS OF THE PERICRANIUM.

My surprise was great when, about seven or eight years ago, I first ascertained the existence of pericranial periostitis at the inception of syphilis. I was then imbued with the generally accepted views regarding the three periods of syphilis—primary, secondary, and tertiary. The following fact made me doubt the validity of the laws of syphilitic evolution, then regarded as absolute and immutable. A young woman consulted me for intense pain of the head of a neuralgic character, from which she had

suffered about a week. These pains, more intense at night than during the day, prevented her from taking any rest. She showed me small tumors about the forehead and cranium, which were very sensitive to pressure, and which she believed to be the sole origin and source of her disease. By palpation over the regions which she indicated, I readily ascertained the presence of nodes, besides which their projecting surfaces were visible—principally on the forehead. There were eight or ten, irregularly disseminated over the frontal, parietal, and occipital bones. The skin covering them did not present any change of color, and was perfectly movable. The tumors were about the size of a large pea, immovable, and implanted, as it were, on the cranium. They were rounded, quite hard, resistant to pressure, which induced a very intense and radiating pain over the spot.

I suspected their syphilitic nature before I was informed of the fact; I was under the impression, however, that they belonged to a later form of manifestations, and were connected with tertiary accidents. I was much surprised when this woman informed me that she had, within a few weeks, an ulceration of the genital organs, and that it was the first time that she had contracted the venereal disease. The examination of the genital organs led me to discover an infecting chancre partially cicatrized; there was a specific inguinal adenopathy on both sides; no syphilitic manifestations, however, had appeared on the skin or mucous membranes. I ordered the iodide of potassium. The pain in the head and the pericranial tumors gradually diminished, and during resolution the skin became covered with a confluent syphilitic roseola. I then resorted to the use of mercury in conjunction with the iodide of potassium, but it did not prevent this first manifestation of syphilis from being very severe. A few weeks subsequently I lost sight of my patient; the periosteal tumors had, however, entirely disappeared. Not having paid especial attention to venereal diseases, I had not at that time had great experience. I consider the case as altogether abnormal and exceptional. Nevertheless, it led me to reflect on the evolution of syphilis, and to modify the impression I then entertained in accordance with the accepted doctrines.

Since that time I have observed many similar cases, and I am forced to believe that they are not as irregular as I then believed them to be. The following cases will, I hope, enable me to give a general history of early pericranial periostitis:

CASE I.—INCEPTION OF PRIMARY ACCIDENTS CHARACTERIZED BY AN INDOLENT INGUINAL ADENOPATHY OF BOTH SIDES. EIGHT DAYS AFTER AN INFECTING CHANCRE APPEARED WHICH ONLY LASTED SIX DAYS. ON THE

TWENTIETH DAY FOLLOWING THESE PRIMARY ACCIDENTS ATTACKS OF CEPHALALGIA AND FRONTAL PERIOSTITIS MANIFESTED THEMSELVES; NEURALGIC ATTACKS CAME ON, STARTING FROM A TUMOR OF THE SAME NATURE; FOLLOWED BY ROSEOLA AND SECONDARY CUTANEOUS AND MUCOUS ACCIDENTS. **MIXED TREATMENT. RESOLUTION.** M. X. Edward, aged twenty-two, butcher, of a good constitution and in excellent health. Had only contracted a slight gonorrhœa in January, 1871, when on the 20th day of November, 1871, indolent inguinal swellings of both sides developed themselves. Eight days afterwards, a chancre appeared on the cutaneous portion of the prepuce and under the penis. This chancre lasted but six days. There was but little suppuration. There was an increase of the adenopathy, following the appearance of the chancre. It never caused any pain.

Twenty days later, crusts appeared on the scalp; there was intense cephalalgia, more intense at night than by day; and very voluminous and sensitive frontal swellings developed themselves, without any change in the color of the skin. The size and sensitive character of these nodes prevented the patient from wearing a hat. When I first saw the patient towards the end of December, one of these frontal nodes still existed. It was the size of a silver dollar. It was ill-defined, beginning at the root of and extending towards the left eyebrow; the skin covering was movable and presented no change of color.

There was slight redness at the site of the chancre, but not the slightest trace of induration; also a multiple and very considerable bi-inguinal adenopathy; cervical adenopathy; crusts on the scalp; persistent cephalalgia, less violent than at the beginning, and neuralgic irradiations starting from the sinciput; at this spot a second periosteal node, a little larger than a silver quarter of a dollar, existed. Roseola from the beginning, mixed with a few very small flat papules. Erythematous redness of the throat, appetite good, general health tolerably good, but considerable loss of flesh during the last month. I subjected the patient to a mixed treatment; in one month the nodes disappeared. The secondary accidents were more persistent. In six months there were no manifestations except the cervical adenopathy.

There is in this case, besides the special features which we are discussing, a singular circumstance which I have noted as detailed by the patient, but which I have never verified. I allude to that specific adenopathy which preceded by a few days the appearance of the infecting chancre. Although I believe in the possibility of many strange facts regarding syphilis, I declare that with the exception of the affirmation above mentioned, on which great reliance cannot be placed, I have no reason to believe that the special adenopathy of syphilis can explain the action of the virus on the lymphatic ganglia before the primary accident, the chancre, has manifested itself. It is probable that the virus which is elaborated at the starting-point, is partially absorbed in the lymphatics, and tends to form in the ganglia, where it remains for some time, new centres of proliferation which incessantly throw it into the circulation. But returning to pericranial periostitis, the primary development of the consecutive accidents of syphilis followed a very short period

of incubation—only twenty days. The infection of the organism, therefore, developed itself with exceptional rapidity, and simultaneously manifested itself on the pericranium, on the skin, and on the mucous membranes.

The two frontal and parietal nodes presented dimensions rarely met with. Would that indicate that the subjacent bones participated in the morbid process? Their facile and early resolution—disappearing without leaving any traces—hardly admits of such an hypothesis.

In the following case, in addition to the node, a small tubercular or gummy tumor grew on the tongue, which should also be regarded as a tertiary accident. I shall not insist on this circumstance at present, for I shall, later on, take occasion to refer to it in connection with a remarkable case of tertiary syphilis of the tongue following closely the primary accident.

**CASE II.—INCUBATION OF THE PRIMARY ACCIDENT LASTING TWO MONTHS. VERY SHORT INCUBATION OF THE SECONDARY ACCIDENTS. ROSEOLA, MUCOUS PATCHES, &c. PARIETAL NODE WITH CRANIAL NEURALGIA. SMALL TUMOR AT THE BASE OF THE TONGUE.**—M. H., aged 22, blonde, of a lymphatic temperament, usually healthy: beyond an attack of porrigo, has never had any constitutional manifestations of disease whatever. In the winter of 1867–8 contracted soft chancres. In August, 1868, gonorrhœa, and about the 25th and 28th of October of the same year, an infecting chancre.

On the 6th of November I saw the patient for the first time. There was slight induration of the frænum and bi-inguinal ganglionic enlargement; erythematous confluent roseola; *a hard tubercle* on the back part of the dorsum of the tongue; mucous patches on the left cheek; flattened papules on the face and on the scalp; a constant pain on the left parietal bone, which was the seat of a hard swelling; the skin over the enlargement was normal and movable. The tumor projected about half a centimetre, and in diameter was about a centimetre and a half. It was round. It was preceded by radiating pains, and very sensitive to pressure. All these accidents had occurred within the last eight days. Treatment—nine centigrammes of the protiodide.

November 12th. The eruption less marked. There are rheumatic pains in the shoulders, the elbows, and the knees. The parietal swelling, which is about as large as a ten-cent piece, is persistent, painful on pressure, and the starting-point of neuralgic irradiations. The tumor of the tongue has diminished one-half.

About the twentieth November the parietal tumor had entirely disappeared, and the pain of which it was the centre had subsided. On the first of December there was no trace left. The small tumor of the tongue disappeared about the second month of the disease.

By degrees the cutaneous and mucous accidents disappeared, but in June mucous patches reappeared—about the mouth in the ninth month of the disease.

I have noticed a few interesting circumstances relative to the incubation of the primary and secondary accidents. After one month of continence, the patient had sexual intercourse: this was about the middle of August. Two



or three days after a gonorrhœa appeared, which disappeared in the first week of October. The patient had no intercourse with any woman, excepting on the twentieth of October. Two days after, the gonorrhœa returned, and the patient discovered two pimples on the side of the frænum; they became indurated. On the sixth of November the secondary accidents had already appeared.

It is evident that it was not the last woman who communicated the disease, but the one preceding the last, who infected him at the same time with chancre and gonorrhœa. The incubation of the chancre lasted two months. As to the incubation of the secondary accidents—it was very short—they manifested themselves fifteen days after the appearance of the chancre.

In this case the pericranial node was unique. It will be observed it was preceded by irradiating and neuralgic pains, of which it subsequently became the focus and point of departure. It was besides the seat of a permanent contusive \* pain.

This association of permanent and irradiating pain is one of the characteristics of pericranial periostitis. Is it not probable that many of the neuralgic cephalalgias described as syphilitic neuralgias, arising under the sole influence of the virus, and without a material intermediate lesion, are no more than those symptomatic pains of a periostitis which was neither sought for nor detected?

In the history of the following case, it will be seen that the true cause of the neuralgia might easily have been mistaken.

CASE III.—SYPHILIS DOUBTFUL AT ITS INCEPTION, WITHOUT ANY OTHER ACCIDENT BESIDES A TEMPORO-PARIETAL NEURALGIA OF THE RIGHT SIDE—HAVING FOR FOCUS A PERICRANIAL PERIOSTITIS OF THE CORRESPONDING TEMPLE.—A FEW DAYS AFTER THE RESOLUTION OF THE NEURALGIA AND THE DISAPPEARANCE OF THE TUMORS A PAPULO-SQUAMOUS SYPHILIDE, THEN LARYNGOPATHY.—On the 17th of June, 1869, I was consulted by Miss Theresa X., aged 19, the mistress of a gentleman who was under my care for syphilis, contracted three months previously. Whether she had communicated this disease or received it from her friend, it was probable, *a priori*, that she was suffering from it. During the past six days she has had neuralgic pains of the right temporal region, recurring during the night, preceded by a slight chill and accompanied with fever. She had observed the day before, the existence of a painful tumor of the temple. I ascertained the presence of a swelling having the dimensions of a cherry-stone, subcutaneous, hard, immovable, and vaguely circumscribed; about two or three centimetres above the right eyebrow. The skin covering it was intact and slid with great facility. This tumor was extremely painful on pressure. It was from this spot, as from a focus, that the neuralgic irradiations had their origin, directed towards the corresponding ear and parietal bone. There

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\* The author uses the word contusive in this way to describe the pain as similar to that felt in a contused wound.—(TR.)

were besides a few local and vague pains in the head, but there was no other tumor. The attacks occurred principally at night, and were slightly febrile. This affection was not due to any external violence, to any external cause, or to any paludal intoxication. For some unknown reason this girl would not submit to any examination of the genitals—affirming that there was no lesion. There was a large and indolent adenitis in the right groin. I did not discover any other syphilitic manifestation. She was at this time chloro-anæmic, face pale, eyes sunken, and morbid languor expressed in the face. Dyspepsia and loss of appetite.

Convinced that this neuralgia was of a syphilitic nature, I prescribed one gramme of the iodide of potassium, to be taken each day.

June 18th,—eighth day of the disease. The fever began at one o'clock in the morning, slightly retarded, without chills, without sweats, and lasted several hours. The neuralgic attack was as violent as the day previous; was accompanied with insomnia and restlessness. There was scarcely any pain during the day. The temporal tumor shows no change.

June 19th. The neuralgic pains have been less severe than during the previous nights. The attack of fever began at half past nine in the evening. Complete insomnia and restlessness. Lachrymation induced by iodide of potassium. The tumor still sensitive on pressure.

June 21st,—eleventh day. Has slept somewhat, has less fever, and has had no pain during the day. The nocturnal neuralgic attacks persistent, but less severe. The tumor remains hard and bony-like; it appears to be less sensitive to pressure; no other symptom of syphilis. I ordered the iodide of potassium to be continued; also the iodide of iron and bark.

Towards the end of June, and during the first days of July, the neuralgic pains and attacks of fever became milder, and finally subsided entirely; the tumor disappeared about the same time.

July 12th,—thirty-second day of the disease. I again saw the patient. The fronto-temporal node had disappeared without leaving any trace. The iodide of potassium had been continued until the sixth instant. After the most careful examination I could not discover any manifestation characteristic of syphilis, so much so that its existence to me became problematical.

About one month later—the tenth of August—the patient consulted me about an eruption, which removed all doubt; there was over her whole body spots of a pale roseola; in the palms of the hands patches of psoriasis, and on the pubis large lenticular papules of a deep red. Enlargement of the cervical ganglia. No further neuralgic attacks. Chloro-anæmic. She related that about five months before, that is to say in March or April, she had had sore throat and a singular pain in the right hand and arm; this pain was paroxysmal and especially nocturnal; it extended through the whole arm as far as the ends of the fingers, and caused such numbness that she could neither sew nor write. I ordered the prot-iodide and tonics.

Three months later an indolent laryngopathy manifested itself, accompanied with characteristic hoarseness, which lasted several weeks, nearly inducing aphonia. I have not seen the patient since that time.

It is difficult to determine in a precise manner the period of the commencement of syphilis in this girl. I am ready to believe that the pericranial periostitis and temporo-parietal neuralgia arising from it were only a second manifestation of

the consecutive accidents;—the first consisting in the sore throat and the neuralgic pains of the right arm and hand. I have observed in several cases that the series of the general accidents of the disease began by a brachial neuralgia, occasionally complicated with a form of paralysis. It must be acknowledged that this manifestation is nearly isolated, and that if not actually accompanied with the phenomena usual to syphilis—such as roseola, sore throat, cephalalgia, etc., it has been preceded or will be followed by them.

I can see no reason to doubt the syphilitic nature of the subcutaneous tumor, of the temporal neuralgia, nor the relation of the cause and effect which existed between them. In this case the neuralgia assumed a more definitely marked intermittent character than in any of the other cases. The intermittence was so regular at its inception that it might have been regarded as the result of paludal intoxication. These regular intermittent neuralgias occurring in the afternoon, but mostly at night, accompanied with more or less febrile action ordinarily composed of two stages—the first of heat and second of sweat, the latest extending to profuse perspiration—are frequent enough in women. I have seen a case so grave that it simulated an attack of pernicious fever; it was accompanied with delirium, trismus, and tetanic contractions of the muscles of the neck, etc. An interesting feature of the preceding case which it will be well to note is the roseola eruption, which only manifested itself a month after the appearance of the pericranial node.

## SECONDARY INDURATIONS AND TRANSFORMATIONS OF CHANCER.\*

By DR. ALFRED FOURNIER (PARIS),

TRANSLATED FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE, FOR 1871 AND 1872, BY DR. EUGENE PEUGNET.

GENTLEMEN,—I am about calling your attention to two important subjects in the history of mucous syphilides, the study of which I have purposely delayed, as they would both have led to doctrinal discussions, which would have been out of place in the essentially clinical and practical questions to which we have devoted our last conferences. One of these subjects relates to *secondary indurations*, and the other to that which is called the *transformation of the chancre, in situ*.

\* Clinical Lecture.

I. It is principally in women that secondary indurations are observed. We must, then, study them here with special care. Clinically, the phenomenon which I am about describing is of the most simple. It occasionally happens that certain mucous syphilides which we have described, like the chancre, become *indurated*, that is to say, a neoplastic effusion forms at their base, which, by its attributes, its characteristics, its form, recalls more or less completely the neoplastic exudation of chancre, the indurated neoplasm of the primary accident. So that these syphilides communicate to the touch the same sensation as the chancre, owing to the similarity of their *induration*. One would believe whilst examining their base, their site, that it was the base, the site, the specific induration of chancre which was under the finger. Such is, in all its simplicity, the clinical history of secondary induration. This established, we come to the details. But before going further, it would be well to establish their authenticity by a few examples taken from nature. These examples are abundant here, and in presenting them to you we will be embarrassed in their selection.

First case, in this young woman. The lesion of the vulva is a syphilide of a papulo-erosive type, with rounded, disk-like, clustered papules. Well, just feel the base of these papules; you will find it resistant, hard, and of a dry hardness, distinct, elastic, absolutely identical to that of the chancre. Here is a similar case. This patient was admitted with a lingual chancre actually cicatrized. Tolerably discreet syphilides (similar to those which manifest themselves during the course of treatment) have developed themselves in the vulva; one of an erosive form involves the whole of the left labia minora. Would you not believe in taking hold of this labia minora, that you were touching a lamella of cartilage? Such is its hardness. Third example. Here is a patient who was admitted to our wards six weeks since, with a typical indurated chancre of the right labia majora, which I showed you at that time. Since then a group of syphilides have developed themselves on this labia, a little below the chancre. Then, in exploring the base of this chancre, and the base of the syphilides, the same parchment-like induration at both points; the sensations communicated by the chancre and the secondary lesion are absolutely identical. Finally, the last example is this one, presenting the secondary induration in its most marked form. The vulva of this young woman is entirely covered with papulo-hypertrophic mucous layers. Feel the labia majora, feel the labia minora; without exaggeration they are so much indurated that one would believe that both are infiltrated with cartilage.

It is thus a constant and undeniable fact that *there are indurated syphilides as well as indurated chancres*. If you have examined with care the various patients I have just shown you, you have already been able to convince yourselves of an important particularity: that is, by their characteristics, by their external attributes, in one word, by their clinical modality, these secondary indurations are absolutely *identical* with the primary chancreous induration. Identical in the first place, for, like the latter, they are of a dry, elastic, even chancroid form in certain cases; of a very different sensation from the doughy hardness of œdema, or inflammatory engorgement. Again, identical, inasmuch as indolent and aphlegmasic lesions, that is to say, developing themselves without heat, without pain, without local reaction, without inflammatory irradiations. Also, identical as to volume, as to development, as to configuration, as to uniformity of characteristics, as to general aspect of lesions.

Identical, even I may state, in advance, as to evolution and termination, inasmuch as lesions spontaneously resolute have a tendency, after a certain period, to reabsorb themselves *proprio motu*, and to disappear without leaving any traces. In one word, they exactly reproduce chancreous induration coincidentally with secondary manifestations.

The vulva is the most frequent seat of these secondary indurations. They are met with elsewhere, on the lips, tongue, anus, etc.; but they are almost as rare in these places as they are frequent in the region of the vulva. That an induration should develop itself under a secondary lesion would be in itself an interesting clinical phenomenon even if we did not have any conclusions to draw from it. But such is not the case. Various considerations attach themselves to this fact, some practical, others doctrinal, all equally worthy of attracting our attention, as you will presently observe. It is not always, with extensive confluent, clustered, in a word, typical syphilides, that secondary indurations develop themselves. They occasionally develop themselves—and I have just given you an example of it—with circumscribed, limited, discrete, even solitary syphilides. Supposing that an erosion or a solitary papule thus presented itself with an indurated base, could not such a lesion in those conditions simulate a chancre, an indurated chancre? It is, in fact, like the chancre, circumscribed, isolated, flat, or slightly projecting; it has the configuration of the chancre; it has its color, its allure, its resisting base, its course, etc. In short, it has so much the appearance of a chancre that at least nine times out of ten an unforewarned observer will take it for a chancre. The error is more than easy, it is almost forced. One must be warned of

the possibility of secondary lesions presenting themselves under this form, not to mistake them for chancre. Practically, the danger of mistaking these *indurated chancre-form syphilides* (as I call them) for chancre, would be of no consequence, for, after all, chancres and syphilides are symptoms of the same disease, and require the same therapeutical indications. But doctrinally it is otherwise. A syphilide taken for a chancre means, doctrinally, *a new infection superadded to a prior infection, a second pox grafted on a first*, for chancre is the result of a contagion and the beginning of a diathesis. A syphilitic subject presenting, *de novo*, an indurated chancre, is a subject who has just contracted a second pox. For, as there is nothing to prevent an organism subject to syphilis to have indurated syphilides manifest themselves two or three times in succession, see where the error may lead to—an error easily made by one who would consider this series of syphilides as a series of successive chancres. The result would be, that a syphilitic subject could contract two or three times in succession a new contagion, and, as it was formerly stated, “pox himself ever and anon.” It would result therefrom that the human organism would be susceptible to contract at short intervals several successive inoculations of syphilitic virus, whilst the clinique and experiments agree in demonstrating it refractory to this virus after a first contamination, whilst it is a common experience and a common idea that *pox does not double itself*. To what illegitimate and singular conclusions can lead the fact of misinterpreting a symptom? This false interpretation has no doubt been applied frequently to the form of lesions I have just described to you. Indurated syphilides have been frequently taken for new indurated chancres, and it has thus been concluded that the pox could double itself in a short interval, treble itself on the same subject, whilst in reality the syphilitic reinfection remained in a state of facts rigorously possible, but absolutely exceptional.

Investigate the few cases, unfortunately too rare! for as they demonstrated the extinction of syphilis, it would be desirable to see them more numerous: examine, I say, the few cases of double pox which have been published by various authors, and after a minute examination you will remain convinced that many of these so-called renewals of chancre were only *indurated syphilides*. But it is not at present necessary to discuss the subject. It suffices to call your attention in regard to it, of a possible cause of error, a confusion which has already most certainly been made, and against which it is important to forewarn new observers.

Actually a signification is generally given to induration which

does not appertain to it; it is caused to express that which it does not. It has become customary to consider it as an evidence of primary infection, as the inseparable characteristic of chancre. Every ulceration, every indurated lesion, is called, *ipso facto*, chancre, only on account of its induration. Although there is nothing more arbitrary, nothing less legitimate, than such an interpretation. It is urgently necessary to react against this common tendency of the minds of the present day. Allow me to do it in a few words.

Induration, considered as a clinical sign (mark it, I do not say as an histological lesion), induration such as we observe it in the patient is not absolutely pathognomonic either of a *disease*, syphilis, or of an accident special to this disease, the chancre. First, as a clinical sign, it may be simulated by certain morbid conditions, for example, such as the chancroids, by the effect of certain caustics, of certain topical applications, or ulcerations or common lesions. Do not forget what I have already stated to you in reference to *artificial* indurations, simulating, so as to mistake it, the spontaneous induration of the chancre. But that is not the most important point. That which interests us especially is, that *induration does not exclusively appertain to a particular accident of syphilis*; it is not the exclusive appurtenance of a manifestation of the diathesis; it is not pathognomonic of the chancre. It is undoubtedly more frequently observed accompanying chancre than any other lesion; but it is also frequently met with as a phenomenon independent of chancre, as a subsequent manifestation of constitutional reflection. For instance, it is commonly met with in the mucous syphilides of the vulva, also with tolerable frequency in the syphilides of the glans, occasionally with those of the tongue. At times it accompanies, under the form called parchment-like, certain syphilides of the skin, papular syphilides with large papules, psoriatic or ecthymatous. It is also found in the various manifestations, but little known as yet, which I described a few years since under the name of redux chancre and satellite indurations of the chancre. It is that which constitutes the lymphagitis, and the indurated adenitis which occurs in the neighborhood of the primary accident. It also forms the secondary adenitis, the beginning of albuginitis, the papules, the tubercles, the nodes, etc., etc.

Consequently, induration cannot be considered as a lesion proper to the chancre. Far from it, *it is a lesion common to various manifestations and to various periods of syphilis*. It is less allied to a given accident of the disease than to the disease itself; it betrays, it exposes, less a chronological stage

of the diathesis than the nature itself, the essence of this diathesis. In other words, induration in syphilis does not mean chancre more than any other accident; it simply signifies that it is a *syphilitic lesion*, a pathological product constituting a common element in the various manifestations of the disease. This more general method of viewing induration is rigorously deduced from an analysis of clinical facts; it is also fully confirmed by histological evidence. What is actually a chancreous induration? A neoplasm developed under the erosion of the chancre. What are secondary indurations? Identical neoplasms forming under the base of secondary lesions. Again, what are ganglionic indurations? Interstitial neoplasms of the glands, etc., etc. Is it then surprising that a disease, including an identical lesion at various periods of its evolution, should clinically demonstrate itself at various periods by a common sign? That identical lesion is a neoplasm; that common sign is induration.

In briefly viewing the above, it results that:—

1. As a general conclusion, that an induration developed under the base of an erosion, or of a syphilitic ulceration, is not of sufficient value as a symptom to attest that that lesion is a chancre.

2. As conclusions especially afferent to the subject which we are considering:

That the mucous syphilides frequently become indurated at their base, in a manner absolutely identical to that of chancre;

That these *indurated syphilides* are more frequently observed at the vulva than elsewhere;

That certain accidental and local conditions may occasionally give to indurated syphilides a harmony of characteristics, a physiognomy which assimilate them completely with chancre, and which expose them to be easily mistaken for it.

- 11.—The second question for this day's discussion is relative to the *transformation of the chancre, in situ*.

Undoubtedly, gentlemen, you are already acquainted with the phenomena to which that name has been given. It is simply this: A chancre under the influence of a pathological process of any form whatsoever, loses its apparent attributes of chancre, to assume those of a secondary lesion; it casts aside its characteristics, its physiognomy of chancre, to assume the aspect of a mucous papule.

Formerly, great importance was attached to this so-called *transformation*. For it was believed that *only by this modification*, the chancre passed into the state of the constitutional accident, and ceased to be anti-inoculable, inoculable to others,



that is to say, transmissible, contagious. These were a series of errors which observation and experience have now cleared away. In fact, we actually know that the chancre, the true chancre, is just as much a constitutional accident as a secondary manifestation. We are aware that it is just as refractory to anti-inoculation as the lesions of a more advanced stage; we are not the less aware that the contagiousness of the disease, far from ending with the chancre, continues in the accidents of a subsequent period. Consequently, that which was formerly considered as a true metamorphosis, completely the essence of the primary accident, is now only a change of aspect, a modification in its progress, which does not have any influence on the intrinsic qualities of this accident, on the character of its diathetic manifestation, on its resistance to anti-inoculation, or its contagiousness. This phenomenon has therefore lost a portion of its interest; it is only a detail of symptomatology, an eventual accident in the evolution of chancre. Nevertheless, in that respect it still deserves our attention. How is this transformation of chancre induced, in what manner does it take place? By two methods, both essentially different, one of which is well known, the other, which to my knowledge, has not been pointed out as yet. The first is true *modification in situ*, which occurs in the following manner. There is a chancre at its acme of inceptive resolution. Destined to undergo papular transformation, it begins by losing its flat and depressed appearance, and becomes prominent; its bottom bulges, rises on a level, in a word *elevates* itself; the color of its *surface becomes altered*; from pultaceous or reddish, it becomes, by insensible transitions, of a rose or of a tolerably pale grayish rose tint;—simultaneously it also loses its smoothness, becomes *granulated*, shagreened, pimpled: finally, for general aspect (which is indescribable), the entire lesion gradually loses its entire chancreous physiognomy to assume that of a secondary papule. Then all these modifications progress together, and magnifying themselves from day to day, when they are accomplished, the chancre, so to speak, no longer exists; as a chancre it is done with; it has become a papule, and whoever should see it for the first time under this new form would consider it a secondary lesion. It is then said to be *transformed*. It is unnecessary to add, that having thus become papular, the chancre progresses like a papule, that is to say, it repairs itself and cicatrizes rapidly, provided proper hygiene and simple topical treatment are made use of. The second mode of the transformation is hardly more complicated. It consists in a true absorption of the chancre by secondary lesions developed at

its periphery. How does this absorption occur? I will demonstrate it to you by an example taken from nature. You no doubt recollect that, four weeks ago to-day, I here presented to you a young woman suffering from a typical indurated chancre of the right labia majora. This chancre, of about five septenaries, presented all the attributes of the primary accident: it was round, as large as a piece of fifty centimes, superficial, erosive, and consequently without borders, brownish red, and of a muscular flesh tone, doubled with an indurated base, etc., etc. Well, this chancre has to-day transformed itself, and you would not recognize it. Here is that which has taken place since you have seen this woman, and what we have observed from day to day.

A fortnight since, small papules dotted the vulva, and a group of those papules formed on the right of labia majora; these were the first secondary manifestations. Then these papules progressed, were developed, raised, enlarged. Others and others were formed in the surroundings. All were at first distinct from each other, and particularly from the chancre. At that time, on one side, the chancre, the primary accident, could be easily recognized, and on the other the papules, the secondary lesions. But from day to day these papules increased, compounded themselves into a common layer, and drew near to the chancre by progressive enlargement. They then surrounded, hemmed in, enveloped the chancre, then fused themselves with it. The chancre was already scarcely recognizable in the midst of this papular layer, as it had also changed its aspect. Its surface had bulged, was raised, had become rose, had, so to speak, turned about to the physiognomy of the secondary lesions. Finally, this double process of the development of the papules, and of the modification of the chancre, continually proceeding in the same course, in time the papules and chancre blended, when the chancre was as if *absorbed* by papules, and disappeared in their midst, losing all its own attributes without its being possible to recognize it thereafter. Well, such is the condition of our patient to-day. Examine with care the lesion on her right labia majora, you will only find there a papular layer, a papulo-erosive syphilide. As to the chancre, you will seek for it in vain; it no longer exists as a chancre; it has fused itself with the papules, it has been drawn in, absorbed by them. This second mode of the transformation of the chancre is tolerably common in woman. We almost constantly have examples of it here.

It is needless to insist wherein it differs from the first, from the one which I had precedingly discussed with you. In the first it is the chancre which transforms itself in the spot, which

becomes papule *in situ*, without having been invaded, modified, by the neighboring lesions. In the second, it is the secondary lesions, which, so to speak, seize the chancre, hem it in, draw it in, assimilate it, and metamorphose it by absorbing it. It is then a true transformation of the chancre by *absorption*, by fusion, by *amalgamation in situ*, with secondary lesions. Such is, gentlemen, the clinical phenomenon of the transformation of the chancre under the double aspect which it can assume.

Stated as a fact, let us see what interest can actually attach itself to the phenomenon which we have just studied.

Ah! if we had the power to observe, *ab ovo*, all the cases of syphilis, and to closely follow their progress, there would be neither error nor discussion possible on the nature of the various accidents which constitute that disease. For then all would go by itself; each lesion, observed in its own time, would be easily determined—thanks to its own characteristics, thanks to the period of its apparition, thanks to the whole of the morbid evolution.

But things do not thus occur in practice. For one patient, for *one woman* particularly, who comes under our observation from the inception of his or her disease, there are ten at least who only consult us at a more or less advanced period of the infection. To return to our subject: supposing that a woman presents herself for the first time with a *transformed* chancre, transformed after one or the other (it is of no consequence) of the pathological processes which we have already studied. Facing this accident, what are we going to say, what diagnosis will we make? Do you believe that we will be able to *recognize the chancre under its mask of secondary lesion*?

I admit that in certain cases the induration, the adenopathy or a few special circumstances will still permit us to distinguish it; but in other cases, and from various motives, the confusion would be fatal, the error inevitable; not having the gift of reaching the part, only being able to establish a diagnosis on the lesions which we actually see, we will say to those who consult us, that which is evident, besides that which is legitimate, we will say, *mucous papule, secondary* accident of syphilis; in short we would not recognize the chancre. In practice an error of this kind is not of much importance, for, after all, chancre and papule are expressions and symptoms of the same disease. But in doctrine it is entirely different. Observe rather. This lesion which we have diagnosticated papule, it is the first in date of the entire disease; it is it which the patient formally indicates as having been the first phenomenon which manifested itself, and, in fact, we do not find anywhere

a trace of chancre. Though a legitimate conclusion, it is truly it which has been the initial accident of the diathesis; *therefore the diathesis has declared itself from its inception by a papule, that is to say, by a secondary lesion.* Thus, gentlemen, certain authors have reasoned to establish what what is called doctrine of the *primary mucous patch*. Seeing the primitive accident occasionally present itself under the form of a papule, they concluded from that, the pox might occasionally declare itself by a secondary lesion. Their error has been in only seeing things by halves, in reasoning on facts incompletely observed, and in not recognizing the transformation of the chancre. From a doctrinal point of view, the most simple cases, the most regular, the most methodical, may lead to the most erroneous interpretations, when they have not been observed and closely followed in all the successive phases of their evolution.

A chancre forms, develops itself, then undergoes the papular transformation; nothing but what is normal in that, and absolutely regular. An observer happens in at this moment, who sees this papule for the first time, who considers it, from the patient's statement, as the *initial* accident of the infection, and concludes therefrom that the inception of pox can possibly declare itself by secondary manifestations. What error is more easy? And thus is established the doctrine of primary mucous patch.

The moral of all this is, that first an excessively rigorous examination should be given to doctrinal appreciations; then, in what actually concerns us, one must not hasten to deny the chancre as the inception of the disease, when it does not present itself under forms markedly evident. For on one side, all the experimental facts and the well observed clinical facts demonstrate it as necessarily preluding in a necessary manner, fatal to the other accident of the diathesis; and on the other, experience presents it as susceptible to numerous varieties of aspect, of extent, of combinations, of transformations, etc., which might readily render it unrecognizable even in the eyes of the most practical clinician.

In fact, that which essentially characterizes the chancre—remember it well, gentlemen—is not such or such physiognomy, such or such character, such or such detail of external symptomatology; that which characterizes a chancre is particularly and before all: 1st, is to be the *derivative of a contagion*, and the product of this contagion at the very point at which it is exercised; 2d, to be the initial expression, the *preludal phenomenon* of the diathesis; 3d, to constitute for a time the *unique* accident by which the infection declares itself. But enough of doctrine. Other studies, more practical, require our attention.

## ONYXIS AND PERIONYXIS AS ACCIDENTS OF SECONDARY SYPHILIS.

BY DR. ALFRED FOURNIER, (PARIS.)

TRANSLATED FOR THIS JOURNAL FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE FOR 1871 AND 1872.

The lesions induced on the *nails* by secondary syphilis are not less curious and more important than those induced on the hair. These lesions are of two kinds:

1st. Those which only affect, or only appear to affect, the nail proper.

2d. Those which occur in the vicinity of the nail, and at first foreign to it, only involve it later and consecutively.

For the first I retain the ancient name of *onyxis*; for the second I would suggest to you the name of *perionyxis*.

In the first group we may study:—

1. The brittleness and breaking of the nail—*cracky onyxis*.
2. The partial separation of the nail.
3. Complete separation and fall of the nail.
4. A more rare variety, say hypertrophic onyxis.

The first of these lesions is much more common in woman than in man. It consists only of a singular friability of the nail, which on the slightest pressure causes the free portion to split, crack, and break. Women vainly strive to conceal this slight deformity, also rather annoying, by paring, rounding, and cutting the nail in every manner; the nail, although shortened, always breaks, shells, exfoliates, and its edge presents a series of uneven asperities, of indentations, of notchings, which are frequently continued into longitudinal splittings of the lamellæ.

It is that which we call *cracky onyxis*, or syphilitic notching of the nail.

This first variety of onyxis is principally observed in the nails of the fingers. It is rare in the toes.

Second variety: *partial separation of the nail*.

In this form the nail appears to rise at its distal portion; it detaches itself from the structures to which it naturally adheres, it separates from *below upwards*. With a steel point passed under the nail the progress of this separation can be traced, which sometimes separates the lamella from its matrix to a considerable extent. Besides externally the limits of the detached and adherent portions is marked by a change in the color of the surface of the nail.

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\* Clinical lecture reported by M. Michel, Externe to the Lourcine Hospital. Continued from October Number, p. 355

It is rather rare that this *distal* separation (I call it distal because it proceeds from below upwards, which, contrary to the other varieties of onyxis, detach the nail from above downwards)—it is rare, I say, that this distal separation extends far enough to divide all the adhesions of the lamellæ, and to cause the fall of the nail. Most frequently it limits itself, and only extends to one-third or one-half the length of the nail. Consecutively the lesion repairs itself by the growth of the upper portion of the nail, which continue their adhesion to the subjacent tissues.

Third variety, *complete separation and fall of the nail (the ungual alopecia* of some authors).

In this form of onyxis the nail separates little by little from the subjacent parts, separates progressively in all its extent, when the separation is complete, falls and leaves exposed the ungual matrix.

This separation takes place without pain to such an extent that certain subjects—careless of their person, it must be admitted—are occasionally surprised to see their nail fall off without having for an instant suspected that it was diseased. I have in my notes an instance of a young man who, unknown to himself, lost *all* his toe-nails. Much surprised one day at this discovery, on searching, he found two of them in his socks. Also a woman in our wards, who stated that to her great surprise she had found the nail of her big toe in her sheets, and said “that she was not aware she had lost it.”

But most usually, with more attentive patients, or when the disease attacks the fingers, the progressive separation of the nail, although insensible, does not escape notice, and can be followed in all its stages. The nail is then seen to become convex near its root, stand in relief, rise; soon its upper border, which is detached and pushed forward, according to its usual growth, or elimination of the lamella, leaves behind a small rosy surface, dry and scaly, which is the matrix of the nail. This surface daily increases in size as the elimination progresses. Then the nail gives way, and finally falls.

But before it has even separated a regenerative process has set in, and a new nail has begun to form.

This one grows and develops, occasionally as regular as the preceding one, at other times more or less arched, curved inwards, crooked, like nails of new formation.

It is said that even in certain cases of this kind the regeneration of the nail does not take place, and the nail is simply replaced by a shapeless mass of horny matter. I would not know how to guarantee this last fact, never having seen it.

Fourth variety: *hypertrophic onyxis*.

Infinitely more rare than the preceding varieties, hypertrophic onyxia consists in a thickening of the ungual onyxia, which is doubled, trebled, quadrupled in volume. This thickening occurs principally, or at least it is more appreciable, towards the free border of the nail, which is not hypertrophied, but unequally broken, rough, separating in shelly layers, presenting irregular fractures and asperities.

The aspect, the origin, of this last form of onyxia (of which the syphilitic origin does not appear doubtful to me, although it is contested) closely resembles the singular morbid state of the nails to which certain authors have given the name of *ungueal psoriasis*.

In the second place, when syphilis involves the tissues which surround the nail, it forms lesions to which the name of *perionyxis* is very applicable.

These lesions present themselves under very diverse aspects, but I believe can be classified into the three following types:—

I. Dry perionyxis, scaly or horny.

II. Inflammatory perionyxis (syphilitic paronychia).

III. Ulcerative perionyxis.

I. DRY PERIONYXIS comprises two distinct varieties: 1. The scaly form; 2. the horny form.

The *scaly form* is simply caused by a papulo-squamous syphilide developing itself near the nail, either on the margins or at the end of the finger under the free border of the ungual lamella.

This form offers nothing special excepting its obstinate character. It suffices to note it.

2. The *horny form* could be styled syphilitic periungual corn or callosity. It is only a thickening of the epidermis which surrounds the lateral portions of the nail.

Its symptoms are of the most simple. On a level with the skin, where it is reflected to frame in the nail, a small longitudinal swelling, slightly projecting, develops itself, caused by hypergenesis of the normal epidermis. This swelling increases, becomes very hard, and actually horny. It then forms a true periungual corn.

Indolent at first, this lesion does not fail to become irritated by friction, and to annoy the patients, who, to remove it, tear it, scratch it, without succeeding in getting rid of it, for new epithelial layers constantly replace those which are thus removed. It then becomes slightly sensitive, has a tendency to bleed, excoriated in spots, particularly on a level with the lateral furrow of the nail, and finally persists under this form until an appropriate treatment masters it.

II. INFLAMMATORY PERIONYXIS presents itself with more marked and more important symptoms.

It is a sub-inflammatory tumefaction which develops around a portion of the nail, most frequently on one of its sides, more rarely on a level with its root. This tumefaction, slightly painful, raised, reddened, or of a reddish brown, closing in a portion of the nail, closely resembles ordinary onychia, but it differs from it by the slow and chronic development of its morbid phenomena, as well as by its termination, for this lesion never forms an abscess. It remains in that state for a long time, always hard and solid, or else it atrophies and disappears by a true process of absorption analogous to that which the syphilitic papules sometimes undergo; or else it ulcerates on its surface in the same manner as these same papules, whose neoplasm sometimes terminates in an ulcerative process.

This form of perionyxis most usually remains *dry* during its entire duration, and on the entire extent of the parts affected. At the most it produces in the furrow on the margin of the nail a longitudinal crevice, which, irritated by friction, becomes excoriated, slightly suppurative, or becomes covered with adhering scabs.

This lesion, most frequently, does not extend any farther, particularly when the site is on the hands. It far from causes the fall of the nail in all cases; but when it attacks the big toe, particularly when neglected, or allowed to run its course, it generally becomes complicated, and either terminates into the common lesions of *onychogryphosis*, or in those of ulcerative perionyxis, which we are about to describe.

III. ULCERATIVE PERIONYXIS.—This third form is much more serious.

It is either *primary* or *consecutive*—consecutive when it follows an inflammatory perionyxis which has become chronic, or has been irritated by various causes, such as bad treatment, walking, fatigue, pressure of the shoes, etc.

Primary, the result of ulcerative syphilides developed at the periphery of the nail.

Whatever may be its operation, it consists in an ulceration, which encircles the nail either partially or completely. There is generally an inflamed, prominent swelling at the base of this ulceration, which is protuberant above the nail, of a dark-red color, sometimes mottled. It is always tolerably sunken, irregular in form, with salient and notched edges, to its bottom sanious, grayish, fungous, and of an *ugly aspect*; it secretes a tolerably abundant sero-purulent, thin discharge, occasionally mixed with detritus and streaks of blood.



When the foot is the seat of the disease (and it is nearly always the big toe which is affected), it does not fail, irritated by walking, to become complicated with inflammatory phenomena. The neighboring structures become red and tumefied; the ulceration becomes of a livid appearance, *purple*, and only secretes a sanguinolent and fetid ichor. More or less intense pain, which renders walking very difficult, if not impossible, manifests itself.

Again, when it has persisted for a time under a deep ulcerative form, this variety of perionyxia assumes another aspect. It breaks out into granulations; it rises and degenerates into a kind of fungous growth—of flabby *mushroom*, which rises around the nail, or falling over, partially covers it.

Ulcerative perionyxia is always chronic in its progress; once developed it remains stationary, or else it has a tendency to extend and to encircle the entire nail. At this last stage it is accompanied with a marked *deformity* of the parts, due as much to its progress and the granulations of the ulcer as to the congestion and the symptomatic tumefaction of the surrounding tissues. It is thus that in the fingers the last phalanx is seen to become tumefied around the ulceration, flattened like a *spatula* (according to the established expression), or else to become globular, and to appear like a small *club* above the other phalanges, which relatively appear thin and atrophied. But it is particularly when the big toe is the site of the disease, and it becomes complicated, owing to the carelessness of patients, with inflammatory phenomena,—it is then, I say, that it acquires incredible dimensions, and has a truly hideous aspect, as you can judge of it by the case under your eyes.

This woman, syphilitic since more than a year, began, a few months since, to have a limited ulceration on the internal border of one of her big toes, near the nail. She neglected herself; she continued to walk, to work for a living, even to fatigue herself. The ulceration increased, involving all the circumference of the nail; the neighboring structures became inflamed, and finally became so painful as to require rest. This woman actually dragged herself to the consultation of our hospital. You cannot imagine the condition of this unfortunate patient's foot at the period of her admission into our wards. The big toe was *enormous*: it displaced the adjoining ones; red, livid, erysipelatous, excessively painful to the slightest touch. A large ulcer, *black* and gangrenous, surrounded the nail, measuring from six centimetres in length to four or five centimetres in breadth, secreting abundantly a sanguinolent ichor, and exhaling an extraordinarily fetid odor. All that is quite changed to-day, for

four or five days of rest and care have entirely modified this fearful lesion. However, you can still appreciate on this patient all the various characters of ulcerative perionyxis at its highest point of development. First observe the toe. It is at least trebled in volume, particularly on a level with the last phalanx, and has the appearance of a bell-clapper. All the upper surface of this phalanx is ulcerated, the borders of which are serrated, measure in elevation more than a centimetre, the bottom of which is irregular, anfractuons, brownish, of a bluish color, still presents here and there gangrenous shreds. In the centre is the nail, flesh colored, brownish, withered like; its adhesions are so extensively destroyed that it is movable, and it might almost be *plucked* with a pair of forceps. As to the peripheric tissues, you also observe that they are strongly congested, tense, reddish, and painful to the touch; but it is not more than a diminution of the violent and almost phlegmonous inflammation which we had to combat a few days since.

Is it necessary to add that the fall of the nail is inevitable as the result of these lesions? It is unnecessary. The nail always falls after an ulcerative perionyxis. And it is even fortunate that it does fall, for, partially separated, it acts in the wound like a foreign body; on account of its rigidity and of its sharp edges it incessantly irritates the parts, causes them to inflame, and induces severe pain. Its fall is therefore of great benefit to the patients, and an almost indispensable condition of cure.

Nature generally effects this elimination unaided, but it is often useful to aid this process, and divide the last adhesions which keep the nail attached to the subjacent tissues.

When submitted to treatment ulcerative perionyxis cicatrizes and recovers. Then one of two things: If the matrix of the nail is superficially or partially affected, a new nail forms and grows, but it is deformed, incomplete, arched, crooked, etc. If it has been deeply ulcerated and destroyed, there are only formed on the cicatrix small spots of scattered projections of horny substance. The extremity of the finger or toe then remains deformed during life, similar to an irregular stump, on which the nail is only represented by a dry, hard surface, partially covered with fragments of nail.

What treatment is required by the various lesions just described?

Against onyxia proper there is evidently nothing require besides constitutional treatment. All applications would be useless.

It is not the same with perionyxis; a local treatment must be applied concurrently with general medication. This tre

ment is important, and contributes more actively and even more rapidly than internal remedies to the process of resolution and cicatrization.

1. For the dry form, specially the horny variety, *protection suffices*. Limit yourselves in protecting the syphilitic corn against bruises or frictions which are for it causes of irritation. With this object in view, cover it with adhesive goldbeaters' skin, with strips of adhesive plaster, with a finger-glove, or better still with one of india-rubber.

2. The inflammatory form requires for a few days the application of local antiphlogistics, baths, poultices, which are also useful in separating the scabs which may have formed on it. Later, that is, after three or four days at the farthest, have recourse to the *occlusive dressing*. In other words, cover the extremity of the finger or toe with crossed strips of adhesive plaster or else of Vigo's plaster. This mode of dressing, aided when required with a few applications of iodine, is certainly the one which succeeds the best against this kind of lesion.

3. Against the ulcerative perionyxis, if the inflammation is active and involves the neighboring parts, it will first be evidently necessary to have recourse for a few days to antiphlogistics; generally baths, prolonged and frequently repeated, emollient fomentations, cold cataplasms, etc. Absolute rest is urgent in case the lesion is in the foot; then as early as possible the occlusive dressing with Vigo's plaster. The occlusive method, applied according to Dr. Chassaignac's precepts, is of the greatest service in this case. It allays pain, it modifies and cleanses the sore, it favors, I may say, the cicatrization. I have always obtained the best results from it, and I give it to you as the treatment, *par excellence*, of ulcerative perionyxis.

It would, however, be unjust not to mention on a par with this method another mode of dressing, as yet but little known, but with which I have met with good success in a few cases. It is the dressing with powdered *iodoform*. I have seen iodoform truly perform wonders on several patients, cleansing the ulcerations in a few days, changing their aspect, and inducing in them a process of cicatrization.

In detail, I will add that at certain periods of the treatment it may be necessary to touch the ulceration either with tincture of iodine or nitrate of silver, when the cicatrization is indolent, when the granulations become exuberant and require repressing; sometimes one may be compelled to have recourse to more active caustics, or else by excision to destroy the vegetating and fungous growths, which have a tendency to form around the nail, etc.; finally, if the nail delays in falling and

forms an evident obstacle to cicatrization, it must be immediately removed. It is nearly always partially separated and only requires culling, which is better than pulling it off with forceps. This small operation is followed by the best results. It not only removes an irritant foreign body from the sore, but permits its complete and regular dressing—dual condition essentially favorable to cicatrization.

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## ON THE EMPLOYMENT OF IODINE IN THE TREATMENT OF SYPHILIS.

By DR. GUILLEMIN,

*Senior Surgeon to the "Invalides."*

TRANSLATED FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE.

BY DR. F. R. STURGIS.

IN the year 1865 I published an account of a number of patients affected with constitutional syphilis, whom I had treated by an agent which presented numerous advantages.\*

At the close of my paper I appealed to physicians, asking them to verify my own results by experiments of their own, my own cases at the time being too few to enable me to believe that I had fully proved my point.

As often happens, even when useful points are in question, my appeal passed unheeded; at any rate, I have never heard that my conclusions have been either confirmed or contradicted by others.

I am about to give the history of a case in which the benefit of the treatment was so evident and showed itself so speedily that I believe it will be useful to give a summary of it.

CASE.—M. S., 51 years old, consulted me in the early part of March, 1871. He has been affected with locomotor ataxy since 1864, and since 1870 with an affection of the face, which presents ulcerations, covered with lancedinated crusts of disgusting appearance.

It was only with the intention of curing this latter affection that M. S. came to consult me. As for his ataxy, he had long ago given up all hope not only of cure but even of improvement.

The following is the patient's history:—

In 1857 he contracted indurated chancres, which lasted 15 to 20 days and were unattended with buboes.

Later, but at what precise time the patient was unable to say, mucous patches appeared upon the scrotum.

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\* De la substitution de l'iode à l'iodine de potassium, dans le traitement des maladies syph., par le Dr. Guillemin. *Gaz. Hebdomadaire de Médecine et de Chirurgie*, 1865.

The locomotor ataxy began in 1864. During the summer of 1869 mucus patches came in the mouth.

During the winter of 1869-70 M. S. was sent to the thermal springs of Amelie-les-Bains. While using the waters an eruption appeared upon the face, and more especially upon the chin, right cheek, and left labial commissure. What its dermatological character was, in the beginning, he was unable to state; perhaps of a papulo or pustulo-crustaceous nature. The one upon the chin was the size of a franc piece (about a silver quarter dollar), the others were smaller. There was a slight oozing when the crusts were removed—and the latter were speedily renewed. These had lasted for some time without treatment.

In the beginning of 1871 he was treated with iodide of potassium, but without the slightest benefit.

Some months afterward (July, 1871) he was directed to use Dupuytren's pills,\* 8 daily, for at least thirty days, but salivation and diarrhœa supervening, he was compelled to abandon treatment, without any appreciable change in the symptoms. Since that time they have remained in *statu quo*, M. S. having sought no further medical advice.

At the date of his consulting me (March 5th) he presented the following condition:—

On the left labial commissure, a transverse ulceration about the size of a fifty-centime piece (silver dime). This ulceration was free from crusts, probably on account of the continuous movement of the mouth in speaking, eating, drinking, etc.

On the chin two other ulcerations, smaller than the preceding, covered with thick, uneven crusts, and matted together with the hairs of the beard.

On the right cheek, four or five smaller and thinner crusts covered small ulcerations.

After a very careful examination I could discover no other lesions due to syphilis; but it must be remembered that in no given case are tertiary manifestations always multiple; in this one the character of the eruption, together with the antecedents of the patient, left no doubt of its nature, so I immediately placed him upon the following treatment:—

|                      |     |                |
|----------------------|-----|----------------|
| Iodini tincturæ..... | 5   | gmms. (3 jss.) |
| Aquæ distillæ .....  | 500 | " (3 xix.)     |

M.

At the commencement I prescribed 30 gmms. (3 ix.) of this solution, 15 gmms. (3 ivss.) in the morning and 15 in the evening before eating. After eight days I increased the amount to 40 gmms. (3 xii.); an amount which was never exceeded by M. S., although it will not always be sufficient, and can in other cases be increased without inconvenience.

On the 22d of March (17 days after the commencement of this treatment), the ulceration on the labial commissure had healed. The crusts which covered the other ulcerations having been removed, it was found that these also were nearly well. Four days afterward the cure was complete; all that remained being some red stains showing the former site of the ulcerations.

It will be hardly necessary to add that there was no improvement in the locomotor ataxy. Shall we therefore conclude that it was not dependent upon syphilis? That would be too

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\* These pills consist of corrosive sublimate and extracts of opium and guaiacum. Each pill contains 3.20 gr. of corrosive sublimate.—[TRANS.]

sweeping an assertion, and I have already before me a certain number of facts which induce me to believe that affections of the cord are oftener due to syphilis than is supposed.

I shall not, however, discuss this point now, as it is beside the question at present under consideration.

Better, I think, to return to the case in hand; that is to say, to the advantages which the use of iodine presents in the treatment of syphilis. Let me begin by saying that this preparation has no disagreeable smell, leaves no bad taste in the mouth, does not irritate the throat, and is easily taken by all patients.

Neither have I ever seen it produce any irritation of the digestive organs, and that is very easily explained: the amount of iodine contained in the solution is so small that its irritating properties are entirely obviated. Thus, 40 grmmes. (3 xii.) of the solution contain only 4 deci-grmmes. (gr. vi.) of the tincture of iodine of the codex, equivalent to a little less than  $3\frac{1}{2}$  centi-grmmes. (about gr. ss.) of metallic iodine.

To avoid the necessity of making a special preparation, the tincture of the codex may be employed, which is in the proportion of one part iodine to twelve of water, although what I generally use is in the proportion of one to ten. The former way of administering it is a little inconvenient, inasmuch as it makes the calculation of the quantity used a little more difficult to determine; whilst on the other hand, if the solution be of the strength of one to ten, it is very easy. However, it is not of much consequence which of the two forms is given; the important point being that the solution shall be perfect, and that it shall be sufficiently dilute to prevent any irritation.

I therefore employ the formula which I used in the case of the patient whose history I am reporting.

At the commencement of the treatment I am in the habit of prescribing 15 grmmes. (3 ivss.) of the solution before the morning meal, and the same quantity after the evening one; five or six days afterward, I increase the daily dose to 40 grmmes. (3 ix.); this is generally enough, as in the case of M. S., but if, after twenty days' treatment, I see no favorable change in the symptoms, I gradually increase the amount; it can be used without danger in doses as high as 80 grmmes. (3 xviii.) per diem, but that is seldom necessary.

It is principally, although not exclusively, against the symptoms of the tertiary stage of syphilis that I use the iodine; therefore it should be compared with that agent which is usually employed in this period; that is to say, with the iodide of potassium.

Now, it is rare for the iodide of potassium, when given in the

usual doses, to be tolerated until its good effects are apparent, without giving rise to unpleasant symptoms, which most frequently oblige a suspension of the remedy before the syphilitic symptoms have entirely disappeared. It is not uncommon to see some of the manifestations of acute iodism supervene, such as *cephalgia, coryza, angina, and acneiform or papular eruptions*, accompanied with a fever which is sometimes well marked. I am well aware the idea is prevalent that very good effects may be obtained by iodide of potassium given in considerably smaller doses than those usually prescribed. By this means acute iodism may be prevented. This opinion, however, needs confirmation, and it is the custom (whether rightly or wrongly) to administer the iodide in rather large doses (several grammes daily).

By giving it in this way it is common, in consequence of acute iodism, to be obliged to abandon the treatment for a longer or shorter time, to the detriment of the patient. Using the solution of iodine in the way that I do, such accidents never occur. In those cases, and they are numerous, in which I have had occasion to employ it, I have never once seen the slightest accident from its use, such as is almost inevitable when giving the iodide; never once have I been obliged to suspend treatment.

The only pharmaco-dynamic effects from using the medicine, and these nearly always present, are an increased appetite and slight constipation.

I should also add that I have never seen atrophy of certain glands (breasts, testicles), nor the other symptoms of *constitutional iodism* result from its use. These symptoms are very rare, it is true, even after the prolonged use of iodide of potassium, and I should not be surprised if they were sometimes noticed, should the solution of iodine be administered for a very long time.

The rapidity with which the aqueous solution of iodine manifests its therapeutic effects is no less remarkable than its innocuity. In the case which I have reported the deep-seated lesions of the skin, signs of a syphilis of long standing, and in its tertiary stage, began to improve in seventeen days from the commencement of treatment, and four days later had entirely disappeared. Neither were these symptoms insignificant. The ulcerations were large and irregular, seriously implicating the dermal layer of cells, of eighteen months' duration, and for which the patient had previously been treated twice ineffectually, once by the iodide of potassium and subsequently by mercury.

Shall we therefore conclude that constitutional syphilis is always improved as rapidly? I do not pretend to say that such is the case; indeed, I have seen some instances where even the prolonged use of iodine was of no good.

Be that as it may, however, the rapid disappearance of the symptoms by this mode of treatment is the general rule. In this connection I do not believe that the iodide of potassium, even in those cases where it is tolerated, gives results as brilliant as those obtained by the solution of iodine.

The observations which I have been enabled to make since the publication of my first paper, have confirmed what I then said concerning the modifications of syphilitic symptoms. For fifteen or eighteen days, and sometimes a little longer, the symptoms remain stationary; then suddenly they undergo a favorable change, and recovery takes place with surprising rapidity, provided the treatment be continued without interruption.

This treatment also presents other advantages of minor importance, but which, nevertheless, should be taken into consideration. The quantity of iodine necessary to produce a good effect is so small, that the cost of a renewed treatment is almost nothing compared with that by iodide of potassium, which is rather costly.

Besides this, the adulterations of iodide of potassium are common and difficult to detect; more than once an analysis of what pretended to be iodide of potassium showed that it did not contain a grain. Such a thing cannot occur with metallic iodine, since it is impossible to so adulterate it as to escape detection, the iodine being volatile by heat and entirely soluble in alcohol.

For the easier administration of the medicine, it will be well to bear in mind that the measures given above refer to the French Codex, and of course their rendering into our standard of measures is only approximate. According to our Dispensatory, 16 *minims*, or 35 *drops*, contain *one grain* of metallic iodine. Thus, when M. Guillemin uses 40 grammes. of the solution, we may give 8 of our tincture, and each will have the same amount of metallic iodine, to wit,  $\frac{1}{2}$  grain. Tannic acid is said to have the property of rendering the iodine soluble in water, and the following formula will be found a good way of giving the preparation: R. Tinct. iodini, 3 iss.; Syrupi aurantii, cort.,  $\frac{3}{4}$  i.; Aquæ dist.,  $\frac{3}{4}$  iv. Two or three teaspoonfuls at a dose.—[TRANS.]

## ON THE ANATOMY OF VARIOLA HÆMORRHAGICA AND PURPURA VARIOLOSA.

BY DR. OSKAR WYSS, (ZURICH.)

TRANSLATED FROM THE ARCHIV FÜR DERMATOLOGIE UND SYPHILIS, BY DR. EDWARD FRANKEL.

ERISMANN has recently examined the skin in cases of variola hæmorrhagica, and concludes that the principal change that takes place in this disease is an exudation of the red and white blood-corpuscles into the hair-follicles, and separation of



the shaft of the hair at its root from the sheath. He regards as of less importance the infiltration surrounding the hair-follicle with an abundance of round, deeply colored spots; but, at the conclusion of his article, considers a diseased state of the hair-follicle as essential to variola hæmorrhagica. He is even led to believe that this condition depends upon the very problematical variola-fungus of Hallier, which is supposed to enter the openings of the hair-follicles and sweat-glands. It is a well known fact that fungi can enter the hair-follicles through their openings (Gudden), but after circumstances prove just as conclusively that this does not occur either in variola hæmorrhagica or in variola. A comparison of Erisman's view of the hæmorrhagic pustule with the excellent description of this condition by Prof. Wagner, of Leipzig, proves its falsity. Upon the examination of three subjects, Wagner demonstrates the identity of the ordinary with the hæmorrhagic pustule, with the single exception, that at the period of pustulation the latter contains red blood-corpuscles, while the former contains pus-corpuscles.

The congestive hyperæmia and the formation of knots and pustules is alike in both forms; the difference is noticed, however, in the fourth stage—white blood corpuscles and serum accumulating in the ordinary pustule, while the hæmorrhagic pustule is filled with red blood-corpuscles and serum. In the latter case, Wagner believes that the hæmorrhage takes place from the apices of the papillæ, not in consequence of vascular rupture, but by the penetration of red blood-corpuscles through the walls of the capillary vessels. The simple pustule, therefore, consists of an exudation of white blood-corpuscles, and variola hæmorrhagica of the entrance of red blood-corpuscles into the epithelium of the stratum Malpighi, subsequent to serous infiltration; rupture of blood-vessels, however, does not occur in either case. In the simple pustule the exudation of white blood-corpuscles takes place from the horizontal and diagonal subcutaneous veins, as well as from the papillæ. In variola hæmorrhagica, Wagner could find neither red nor white blood-corpuscles in the surroundings of a horizontal venous plexus.

Many cases of hæmorrhagic variola having occurred during the last epidemic of small-pox, I succeeded in obtaining several pieces of skin with the hæmorrhagic complication. As the results of my investigations are different from those of Erisman, and serve to confirm Wagner's account, I trust I may be permitted to communicate them:

I. Specimens of skin from variola hæmorrhagica, obtained

from a man sixty-nine years of age, infected June 16th, who was prostrated with the usual symptoms on June 27th. Eruption followed on the 1st of July, and on entering the hospital on the 2d the entire body was covered with red spots. Intense diffuse redness continuing on the 3d, an attack of confluent small-pox was expected; but on the 4th, hæmorrhagic spots appeared; on the 5th, hæmorrhages had occurred in the skin of the forehead, breast, legs, and the mucous membranes. Death on July 6th. Large and small pustules were found on the skin, very few of which were umbilicated, but filled with more or less bloody contents on hæmorrhagic bases.

*Microscopical examination.*—The extravasations, about  $\frac{1}{4}$  mm. in diameter, are situated under one or several pustules, which are separated from each other by more or less normal skin. Their longitudinal section has a thickness of about 2 mm. They all extend to the upper surface of the cutis, the larger reaching to the epithelial layer, thus filling the papillæ and the superior surface of the corium with closely aggregated red blood-corpuscles. In the deeper layers of the corium, the extravasation is not continuous, the more consistent bundles of cellular tissue remaining intact, while between them the accumulations of red blood-corpuscles form networks or are irregularly disseminated. In the deeper layers, towards the subcutaneous cellular tissue, but in greatest degree towards the deeper layers of the corium, these spindle-shaped masses of red blood-corpuscles are gradually lost without a well-defined margin. Upwards, larger and smaller groups, as also isolated and well-preserved blood-corpuscles are seen lodged in the compartments of the pustule, especially of those below, but also of those more superficial. Between them are scattered white corpuscles. These are free, and nowhere in the interior of the well-preserved epithelial cells. Directly under the epidermis, the upper layer of the rete mucosum contains but few larger groups of red blood-corpuscles measuring 0.3 mm. in length, and 0.1 in thickness. These masses are not, however, contained in a single, but in several compartments of the pustule, which are of a round or oval shape, placed close together, and have a length of 0.08 mm. and a breadth of 0.045–0.075 mm.; otherwise the pustules present the same structure as described by Ebstein and Wagner. I have frequently found the coagulations of fibrine observed by the latter author.

A considerable exudation of cells takes place in a greater degree around the vessels of the corium than around the vessels of the papillæ; in amount, its accumulation directly under the

pustular florescence is equal to that between them, perhaps somewhat less abundant in the interior of the hæmorrhage extravasations than in their vicinity.

The hæmorrhage extravasations into the corium have no relation whatever to the hairs, sweat, or sebaceous glands, or their ducts. If passing through an extravasation, they remain unaltered. The external sheath of the hair-follicle is sometimes intact, and again filled with red blood-corpuscles. The inner sheaths of the hair-follicle and the root-sheaths have never been found to have undergone any change.

II. *Purpura variolosa*. The specimens of skin were obtained from a laundress, 40 years of age, not re-vaccinated, who was taken sick on May 1st, after mild prodromata, showing on the fourth day red spots on the body with erythema of the face. Early on the 6th, redness and swelling of the skin of the face and body was still present, with red spots on the arms, and hæmorrhagic extravasation into the conjunctivæ, which was followed at night by dark, bluish-red spots of purpura, numerous and discrete, on the breast, arms, and legs. On May 7th scattered hæmorrhages found on the whole body, in size from that of a millet-seed to that of a silver dollar. There are no pustules or vesicles, perhaps only a slight elevation of the epidermis. Death occurred on the morning of May 8th after hæmorrhages from the genitals, dyspnoea, and delirium.

*Microscopic examination*.—The papillæ, in circumscribed spots of 1–2 mm. in diameter, are enlarged to twice their length and breadth. The cells of the super-stratum of the rete malpighii are also enlarged in many of these spots; they appear swollen, imbibe carmine and hæmotoxylin less freely than the surrounding parts, but show the nucleus very plainly; the change is analogous to that of cells of the rete which border on developing vesicles and pustules. The epithelial layer is everywhere continuous, nor can there be anywhere observed a commencing vesiculation. Numerous points of the corium contain extravasations of blood, similar in construction to those described above (var. hæm.), but smaller, seldom measuring more than 3 mm. in diameter. Their extent in depth is the same as above described. Very few extend upwards to beneath the epithelial layer, approaching it at a distance of 0.017–0.035 mm. Very few extravasated red blood-corpuscles are found in the papillæ; around the blood-vessels, coursing in the upper portion of the corium under the base of the papillæ, is found a moderate exudation of white blood-corpuscles, but none in the deeper cutaneous layers. Hairs, glands and their ducts, when accidentally surrounded by hæmorrhagic extravasations (a rare

occurrence), pass through them unaltered. The extravasations extend only to the external root-sheath of the hair. The extravasations lie between the hairs and glands, only enclosing them when large and confluent, thus proving that the former have no genetic connection with the latter. This independent relation of the extravasation to the hairs and glands, as well as the integrity of the latter, is particularly well shown in flat sections of skin.

The above described enlargement of papillæ only takes place over hæmorrhagic extravasations. The slight projection of the spots above the surrounding skin is therefore caused by the swollen papillæ, as well as by extravasated blood and by the serous infiltration of the rete Malpighii.

My observations, in accordance with those of Wagner, prove, therefore, the groundless character of the view held by Erismann. The hair-follicles are more liable to become affected in hæmorrhagic variola than in the ordinary variety, as in the former the skin in general is more intensely affected, *i. e.*, as the hæmorrhagic extravasations surround the hair-follicles. I cannot, however, agree with Wagner, when he asserts that the hæmorrhagic pustule resembles the ordinary pustule in all respects,—the only difference that the latter contains pus-corpuscles and the former red blood-corpuscles during the stage of vesiculation. This assertion may apply in a certain number of cases; but in others, and they constitute, in my opinion, the majority, the pustules become filled with red blood-corpuscles at a much earlier period, at a time when suppuration of the vesicle, *i. e.*, the accumulation in it of white blood-corpuscles has not begun, but when the vesicles are in process of growth. The bloody contents of the papule is also, in my opinion, less essential for the hæmorrhagic pustule than for hæmorrhage into the cutis. These hæmorrhages into the cutis do not, however, occur at a certain period of the process of development of the pustular efflorescence—when the exudation of white blood-corpuscles is most abundant, but form during the different stages of development: in some cases also at a time when no specific exanthem has made its appearance. With the exception of the foregoing hyperæmia, they are often the first (and owing to the pernicious course of such cases), also the last, symptom of the variolous skin disease; these are the cases of so-called purpura variolosa, of which Hebra (*Acute Exanth. and Skin Diseases in Virchow's Path. and Therap.*, p. 172) makes short but striking mention. In the larger number of cases the hæmorrhages begin to form when the pustular efflorescences are more or less developed; and this is the true variola hæmorrhagica. At this time the transu-

dation of colorless blood-corpuscles also commences ; the transudation of the colored by no means takes the place of the white corpuscles ; the non-occurrence of suppuration in these cases is explained by the fact that death usually precedes this phenomenon. Provided the patients live, the hæmorrhagic variety also passes through the ordinary metamorphosis of other variolous pustules.

Wagner regards the papillary points as the means of exit of the red corpuscles ; that this may occur in this situation I do not in the least doubt ; on the contrary, I have been able to trace rows of red blood-corpuscles between the epithelial cells from the papillæ to the upper layers of the rete Malpighii—undoubtedly the way taken in transudation. According to our observation, however, their point of exit is also in the cutis, within reach of the vascular network below the base of the papillæ, and even deeper. In regard to the question whether the transudation occurs *per diapedesin* or *per rhexin*, I agree with Wagner, although I have not had the opportunity of satisfying myself in regard to the integrity of the walls of the vessels by means of injection. It follows, however, from the equal distribution of the extravasated blood-corpuscles along the normally placed cutaneous vessels, that the blood has left the vascular system at an extraordinary large number of places, a circumstance which is against the theory of rupture.

I had the opportunity during these investigations to observe variola-knots and pustules in the earliest stages of development. Regarding the knots I do not incline to the opinion held by Wagner, for I believe that œdematous swelling of the papillæ as well as serous infiltrations of the epithelial cells take part in the formation of the knot. Concerning the formation of the first attempts at vesiculation I fully agree with Wagner. Before I had opportunities of observing variolous pustules in the more advanced stages of development, I doubted the correctness of his view. I am now in the possession of cuts, especially flat sections through young vesicles, which show the primary development of the compartment of the pustule as going forth from the epithelial cells, and in other sections can be seen how secondary compartments develop from these. The tertiary compartments of Wagner can only be recognized in further developed vesicles.

## Epitome of Current Literature.

**Syphilitic Dactylitis.**—In speaking of this lesion of syphilis, at his clinic, Dr. Gross remarks, that this is an affection that by some is thought to be extremely rare, but which is often seen at his clinic, and is referred to in his "Surgery" as being sufficiently frequent. It is known as syphilitic panaris or dactylitis syphilitica. It attacks one or more of the fingers, and consists of a deposit of the gummous matter peculiar to syphilis, both under the periosteum and in the structure of the bone itself, which becomes softened and expanded to many times its natural size. It occurs generally in children before the seventh year, in whom it is produced by inherited syphilis. He says:

This little colored boy, two years and six months old, was unfortunate enough to have his hand trodden upon a year ago, which resulted in this disease of the metacarpal bone of the thumb. But this result could not have ensued if this taint were not in his system. His mother states that she has had four children, who are all dead except this one, and she has miscarried several times. His father also is not healthy. The child's system needs invigorating. He shall have a salt bath every day, and his diet shall be carefully regulated, so as to consist only of the most nourishing food. A piece, the size of a walnut, of unguentum hydrargyri may be rubbed on the inside of his thighs every second day. An emollient poultice may be applied to the affected finger.—*Philadelphia Medical Times*, October, 1872.

**Epithelial Disease grafted on a Congenital Wart.**—The following is the history of a case that was under the care of Prof. Gross: This man, a blacksmith by trade, was forty-eight years of age, and came from Frenchtown, N. J.

The patient states that from his birth he has had a wart or mole in the right groin, immediately above the centre of Poupart's ligament. This remained in a stationary condition until one year ago, when, during a fit of sickness, he thinks he accidentally scratched its top off with his finger-nails. Since that time it has gradually enlarged and finally ulcerated, producing an offensive discharge. The tumor is now as large as a pigeon's egg, projects from the groin, and has a smaller, similar tumor on each side of it. He says that his general health is good.

This is a wart which has taken on epithelial disease. The accident he mentions may have induced it, but probably had but little connection, if any, with the origin or development of the morbid action. The tumor is covered with caco-plastic lymph, it is tuberculated, and distantly resembles a large mulberry. It is hard and incompressible, and discharges a scanty, fetid pus, slightly bloody, probably due to the friction of the patient's clothes upon the tumor. The lymphatic glands of the groin are enlarged and indurated from the anterior superior spine of the ilium to the pubic bone, and in all probability this condition of the glands likewise extends into the interior of the pelvis and abdomen. This fact very much complicates the case, and it is doubtful if the most careful and skilful surgeon could operate so as to remove the tumor and all the enlarged glands. In fact, this would involve such a serious operation that I refuse to operate, because it would fail in its result unless all the diseased glands were removed; and even after they were, the disease, being malignant, would be almost certain to return either in the cicatrix or elsewhere in the body, and so perhaps hasten the fatal result. This case is interesting, as it shows how a wart may remain dormant for nearly half a century, and finally take on malignant action; it might have been encephaloid or scirrhus, just as well as epithelioma.

We will direct the patient to wash the part frequently with a dilute solution of permanganate of potassa, which is a powerful deodorizer. It is not worth while to give any remedies internally. In spite of the praises of some practitioners in favor of arsenic, who consider it as having almost a specific virtue in this disease, I have not only utterly failed to find it of any special value in treating this affection, but in my experience I have not seen it produce the slightest effect upon the disease, beyond improving the general health as a tonic.

Until we have more light than we now possess on the nature and treatment of these carcinomatous diseases, our only reliance will be upon prompt and complete extirpation of the diseased structures.—*Philadelphia Medical Times*, October, 1872.

**An Extraordinary Case of Hydrocele.**—In this case, which is reported by Dr. John G. Meachem, of Racine, Wisconsin, five quarts of a very dark, almost black serum were removed from the scrotum by tapping. Before the operation, when the patient was in the erect position, the scrotum reached to within four inches of the knee-joint, and it was twenty-three inches in circumference. It was natural in color, smooth, semi-elastic, but not diaphanous. The penis was entirely obliterated, having been dragged, and presented simply an umbilicated

depression at about the centre of the tumor. Fifteen years before he came under Dr. Meacham's care, he received a severe contusion of the testicle. Violent inflammation followed, which confined him to bed many weeks. He recovered; the scrotum, however, never resumed its normal size, but was free from pain or any inconvenience until about a year had elapsed, when it began slowly, but steadily, to increase, and had so continued until he presented himself for treatment. Since the first operation, tapping has been repeated six times—never less than three pints of fluid, which is lighter in color than that first obtained, being removed at one time. The patient refused to allow any operation to be performed for the radical cure of the hydrocele.—*Philadelphia Medical Times*, 1872.

**The Cause of Pellagra.**—Dr. Lussacra tries to establish the innocuity of the mushroom, *sporisorium moydis*, which is said to be the cause of Pellagra. North Italy alone has more than 60,000 cases of this disease, and the annual mortality of them is about one-tenth. Since 1854 the professor has made experiments with the mushroom made into powder upon dogs and birds, and the results have all been negative. Since these attempts the author has sought in vain in Lombardy and in Venetia for grains of the maize affected with this parasite; and yet these are the most favorite localities for the disease. He also remarks that the "verdet" is very rare in countries where the disease is endemic, and appears among persons who never eat maize. He has also examined what might be the influence of some other alterations of the grains of maize, such as the charbus (*uredo*), the serratia, or the penicillium glaucum, and finally of the ergot of maize (*sclerotium moydis*) which is the analogue of the ergot of rye. All these parasites are, he thinks, without appreciable influence on animals or men subjected to their influence, whether entering by the intestine or by the blood or lungs. On what then does this terrible disease, which continues the whole lifetime of the patient, depend?—*Gazz. M. Ital. Provinc. Ven.*; *The Doctor*, August, 1872.

**Enlarged Glands.**—In the report of the Paris Anatomical Society, some cases have been mentioned in which large and general glandular hypertrophies have disappeared when the patients were attacked with erysipelas. M. Malassez observed a great increase in the white blood-corpuscles. Another case of very great enlargement has been related during the month by M. Reclus, in the pages of the *Mouvement Méd.* They are all very interesting.—*The Doctor*, December, 1872.



**Diagnosis and Treatment of Cerebral Disease originating in Syphilis.**—In a paper having a similar bearing to the extract just given, Dr. Owen Rees observes that cases of cerebral disease originating in syphilis are very generally diagnosed, notwithstanding the difficulty occasionally met with as the result of reticence on the part of the patient. We are indeed often assisted by observing eruptions, nodes, cicatrices, and ulcerative destruction of parts, or suspicious rheumatic pains may be complained of; but these indications are not always afforded to us, and the history which would help to a correct diagnosis is not unfrequently withheld. Even when thus unassisted, points may be recognized in the case which become sure indications of the nature of the disease, amongst which are the following:—1. The paralytic seizure is generally the immediate result of some violent exertion, or of some long-continued muscular effort carried on to fatigue, and the collapse is often so great as to threaten immediate dissolution. 2. The symptoms may be hemiplegic or paraplegic, and in the latter case we frequently have no reason to suspect the spinal cord, though in other cases that structure may be seriously involved. 3. The hemiplegic and the paraplegic symptoms are peculiar in character, there being marked irregularity in loss of motor power and of sensation as affecting opposite sides of the body. Thus, the right leg and the right arm may be paralyzed, the leg being scarcely affected, while at the same time the left leg may have lost motor power. Again, there may be hemiplegia of one side and anæsthesia of the other, and the loss of sensation may perhaps only affect one limb. Such irregularities occur in great variety. 4. Pain in the head and tenderness of the scalp are scarcely ever wanting. It is worthy of note that anæsthesia is very generally present in syphilitic cerebral disease, often remaining in slight degree long after every other symptom has passed away. The higher vascularity of the gray cerebral matter, rendering it more likely to become infected by the deposit of diseased blood, may perhaps explain the condition. 5. Aphonia has been observed in many cases in the early stage, greatly increasing the difficulties of the diagnosis. In regard to treatment, Dr. Rees has been strongly impressed with the belief that mercurial treatment is essential to the removal of the guminous deposits of syphilis, and that the patient may be in great peril even when the cause of evil is recognized, if the practitioner be satisfied with relieving the symptoms which present themselves, without having regard to the probable existence within the cranium of material still unabsorbed and ready to produce violent symptoms whenever an exciting cause may come into action. Syphilitic deposits in the brain may, just like various

forms of malignant disease, be present in certain parts of the brain matter without producing marked symptoms. The intervention of an exciting cause induces inflammation, the deposits occurring as the results of this action being composed of the ordinary components of the blood. These materials are easily absorbed by the iodide of potassium; the symptoms disappear, and the patient is considered to be perfectly cured. The original syphilitic deposit, however, still remains unabsorbed, and a recurrence of symptoms is imminent unless recourse be had to *mercurial treatment* in order to effect the removal of the gummous mass. The power of the iodide of potassium to effect the absorption of homologous growths, such as those observed on bone, is beyond all doubt, and probably we may confidently trust to its use in all cases of new growth of connective tissue, where the mere proliferation of cells has not been succeeded by fibrillation and an approach to retrograde metamorphosis. These changes occurring, the formation of gummata seems to place such tumors beyond the power of the iodide of potassium, whilst mercury appears to be their special antagonist.—*Guy's Hospital Reports*, Ser. III., vol. xvii.

Case of Pessema.—Dr. Frisbie reports a case of this disease, which was first described by Dr. Bergh, of Copenhagen. The name was applied from the resemblance of the eruption to a draft-board. Dr. Frisbie's patient was a lady, æt. 30, troubled with leucorrhœa. The eruption is thus described:—The whole face was somewhat swollen, as were also the limbs below the knees. The pustules were discrete. There were about twenty on the face, and a few on the scalp. The arms and legs were thickly covered. He counted forty large pustules on one leg between the knee and ankle. The thighs and body were but little affected, the most being on the back. These pustules were elevated from two to five lines above the surface of the skin, and were from three to six lines across the base. They were round, and displaceable with the skin, with a well-defined outline, regularly convex, and somewhat roughened on the surface of the mature pustule, but smooth on those just forming. They were of a brownish-yellow color, hard to the touch. Those pustules on the fore-arms and legs had a red areola. At one time the legs were so inflamed (about the base of the tumors) as to be quite painful when the patient was standing on her feet. By firm pressure a small amount of pus could be made to ooze out from several small openings, but without reducing the size of the tumor. Its texture was spongy, and bled freely if pricked or irritated too much. The mucous membranes were free from pustules, and there was no enlargement of the lymphatic glands.—*Medical Record*, July, 1872.

**Syphilitic Sore on the Female Nipple.**—Mr. Andrew Clarke, of the Middlesex Hospital, reports the following case as an addition to our knowledge of this form of syphilitic infection. M. A. S., aged 32, came as an out-patient to Mr. Clarke in November last, with a sore, which had all the appearance of a chancre, on the left nipple. There was also an enlarged and tender gland in the axilla. The patient had always been a healthy woman, and her husband also was quite healthy; she remembered, however, putting a neighbor's child with a sore on its mouth to her breast about four months before, and, according to her own account, the sore formed two or three months afterwards. She was ordered to take perchloride of mercury, and to have black-wash applied to the chancre. In three weeks she was quite well, and ceased attending the hospital of her own accord.—*The Lancet*, Aug. 2, 1872.

**Soap as a Cause of Eczema.**—R. M., in an article entitled "One Source of Skin Diseases," states, that whilst using *Brown Windsor* as a shaving soap, he thrice suffered from an eczema of the face. On the first occasion he derived no benefit from treatment by the two most celebrated dermal surgeons in London, and at last the disease *disappeared of itself after giving up shaving for a time*. Having a quantity of the brown soap, and through inadvertence, he took to using it again, for a time without effect; but when dry and hot weather came, a recurrence of the disease came on, which also again, after some months of discomfort, disappeared. Curious to *make sure* whether *the soap* was the real cause or not, he deliberately employed the soap a third time. He was in excellent health, and in about three weeks the disease *reappeared*. Upon dissolving the soap in water or alcohol, he found, upon examination of the undissolved particles with a lens, that they consisted mostly of *minute portions of bone*.—*Nature*, April 11th, 1872.

**On the Detachment of Urinary Concretions from the Walls of the Bladder.**—Dr. Reliquet contributes several papers on this subject, and arrives at the following conclusions:—1. That electricity rapidly occasions a diminution of the sensitiveness of the bladder, causing a swift extension of its walls, which leads to a separation or detachment of such urinary concretions as adhere to the walls by a large surface. 2. The continuous irrigation with simple water or with various solutions is capable of loosening and altogether detaching the sand which is fixed in the vesical walls by its rough and pointed surface.—*Wiener Med. Zeitung*, May, 1872.

## Therapeutical Notes.

**The Treatment of Phagedenic Chancres by Continuous Irrigation.**—Mr. Jonathan Hutchinson, has, for some time, used the continuous bath with very good success in the treatment of phagedenic chancres. The patient is ordered to sit in a hip-bath with tepid water for the greater part of the twenty-four hours, a few hours being allowed for sleep. The water is changed as often as it becomes uncomfortably cool. This treatment is kept up until all phagedenic action ceases, and the sore shows a perfectly healthy surface. It may or may not be necessary to apply fuming nitric acid to the sore in addition to the bath, but in some cases the cleansing action of the water alone is quite enough. Mr. Hutchinson attaches great importance to a frequent change of the water in contact with the sore, and lately he has directed the patient to keep a continual stream of water from an irrigating apparatus playing on the ulcerated surface while in the hip-bath. By this means every particle of contagious phagedenic discharge is removed as soon as it is secreted, and the formation of a healthy surface is much accelerated. In a case lately under care, the patient, a man aged forty, was admitted with a chancre which had probably existed about a month, and been phagedenic about ten days. It was a very large sore ( $2\frac{1}{2}$  inches by  $1\frac{1}{2}$ ), situated on the upper surface of the prepuce; its base was ashy, its edges overhanging, and a large slough was attached to part of its surface. It was evidently spreading fast. The patient was put into the continuous bath, with orders to keep a jet of water from the nozzle of an irrigator constantly playing over the sore. After a little more than three days (eighty hours) of this treatment, without any other local application, all traces of sloughy discharge had ceased, the ulcer showed a healthy surface and had begun to heal at the edges. Its after-course was equally satisfactory, and he left the hospital twelve days after admission, quite cured as regards the chancre.—*British Medical Journal*, Nov. 2, 1872.

**Practical Observations on the Use of Carbolic Acid in Syphilitic Diseases.**—Dr. Karl Sigmund remarks that, incited by the reports of the value of carbolic acid in parasitic affections, he determined to give it an extensive trial in syphilitic affections. His results, however, appear to have been essentially negative. He says, its internal administration produces no effect

whatever upon the progress or cure of syphilitic diseases. Large doses—as 10, 15, or 20 grs.—could not be administered for several days together without much disturbance of the digestion and of the circulatory and urinary systems, which is of so much the greater importance in syphilitic cases, because many of the patients are very badly nourished, and the use of known anti-syphilitic remedies has often to be postponed for weeks, till the general health is to some extent improved. The fungoid theory of the origin of syphilis is certainly in no way proved; but Sigmund's experiments have convinced him that, even if it were, the use of carbolic acid for six or eight weeks after the existence of primary syphilis has been clearly diagnosed, has no influence upon its development. Secondly, the acid has been used as an external application on account of its disinfecting properties, either pure or in solution in spirit or in glycerine. When applied pure, it changes the tissues into a dense scab, which separates more slowly than after the use of other escharotics, and in this and other respects presents no advantages over other corrosives, as sulphate of copper, red precipitate, chloride of zinc, and Vienna paste. When applied weak, for the purpose of cleansing and purifying suppurating wounds and ulcers, it causes pain, does not favor granulation and the development of skin, and has an unpleasant odor, so that he has often been obliged to resort to other measures, as to chlorinated soda and permanganate of potash. It deserves however, he thinks, extensive employment when very diluted (in the proportion of 1 to 2 drachms to a pint of water), as a means of preventing contagion. He prefers the employment of sulphate of copper, zinc, acetate of lead, tannin, alum, etc., to carbolic acid in cases of gonorrhœa as an injection, which, he thinks, may prove absolutely injurious.—*Aerztliches Literaturblatt*; *The Practitioner*, July, 1872.

**Treatment of Urethral Fever.**—Dr. Brinton, of Philadelphia, discusses at length the subject of urethral fevers, which he says may follow any of the ordinary operations upon the urethra, no matter how carefully or how delicately performed. The symptoms are, first, the *chill*, which usually makes its appearance six or eight hours after the time of operation, and lasts for from twenty to sixty minutes. It is almost always accompanied by considerable nausea. The pulse is quick and feeble, commonly ranging from 110 to 130, and sometimes wanting in regularity. To the chill succeeds the hot *fever*. This rarely lasts longer than one or two hours, and is again followed by the *sweat*. The patient is literally bathed in perspiration, and so remains for many hours. Dr. Brinton has seen the sweat last almost without break for two or three days, and it is

accompanied by very great gastric irritability. The pulse is quick, but it is not strong; the urine is scanty and high-colored; the tongue is coated at first with a white fur, which gradually becomes almost of a chocolate brown, and very dry; thirst is extreme, and there is insomnia. Occasionally such patients die; usually, however, they recover. In regard to treatment, Dr. Brinton first asks whether there are any measures which may be resorted to, to lessen the likelihood of the occurrence of all these disagreeable symptoms. He himself takes unusual precautions, giving the patient some whiskey or brandy before operating, and taking care that during the operation he is not in any way exposed to cold or draughts of air. Then, after the operation, he generally empties the patient's bladder with a catheter, and directs that he be wrapped in a blanket and carried to bed, all wet clothes being removed. As soon as he recovers from the anæsthesia, he administers (as has been recommended by Sir Henry Thompson) a full dose of morphia and quinia—one-quarter of a grain of the former and five grains of the latter, and every two or three hours afterwards, until he sleeps, one-eighth of a grain of morphia and two or three grains of quinia, or more, if necessary. He seldom leaves any instrument in the urethra, as they often, he thinks, produce irritation. Soothing applications to the supra-pubic region and to the perineum in the form of hot cataplasms, dashed with laudanum, or the old-fashioned excellent hop poultice, are very serviceable. If, in spite of these precautions, a chill should occur, hot stimuli should be given and hot-water bottles and dry warmth be applied. The sweat must be treated with morphia and quinia. The muriated tincture of iron would seem at first sight to be peculiarly adapted to the sweat, but its tendency to increase rather than allay the gastric irritability renders it objectionable. As a local application, Dr. Brinton recommends frequent sponging of the entire surface of the body with strong tepid alum water, which proves extremely grateful to the patient and appears to check the excessive diaphoresis. The nausea and vomiting can best be controlled by the internal application of a few drops of chloroform and by the application of mustard plasters upon the pit of the stomach. The diet is a matter of great importance, and Dr. Brinton advises that reliance should at first be placed exclusively upon iced milk and milk punch, given in small quantities; beef essence may then be given, and subsequently solid food. The thirst is best allayed by iced lemonade. Instruments should not again be passed till all irritation has passed away.—*Philadelphia Medical Times*, 1872.

**Hyoscyamine.**—At the Academy of Medicine of Paris, M. Oulmont recently read an interesting memoir on this subject. He thinks the alkaloid possesses all the properties of hyoscyamus, and that the fixity of its composition is a great advantage. It should be given at first in doses not exceeding two milligrammes in the day, either in pills or by hypodermic injection. The dose can be gradually increased to three or six times as much. It can be continued until its physiological effects (dryness of the throat, dilatation of pupils, etc.,) are to some degree manifested, but if these become grave it should be discontinued, and they rapidly disappear. Hyoscyamine is a narcotic, and relieves pain and neuralgia, but is less efficacious than opium or belladonna. M. Oulmont finds hyoscyamine very useful in spasmodic and convulsive neuroses, and says it will cure mercurial tremblings when all other remedies fail. He has also found it more useful than anything else in paralysis agitans. It is, however, of no use in locomotor ataxy. It procured some temporary relief to the spasms in a case of traumatic tetanus. The memoir was referred to the Therapeutical Section of the Academy, and will probably be the subject of a careful report. —*The Doctor*, December, 1872.

**The Treatment of Paraphymosis.**—In a memoir on paraphymosis, Dr. Charles Mauriac, Physician to the Hôpital du Midi, suggests the following rules or aphorisms in the management of this venereal complication. After giving a number of excellently observed and recorded cases, Dr. Mauriac sums up as follows:—1. In cases of paraphymosis not complicated with simple chancre, we should always attempt simple reduction, whatever be the degree or period of the accident. 2. A long median incision on the upper surface of the penis to free it is only indicated in cases of paraphymosis where the narrowness of the ring coincides with shortness of the prepuce. 3. When paraphymosis is complicated with auto-inoculable chancre, we must abstain from all operations with the knife. If the reduction be possible, we must wait to practise it until we have destroyed the virulence of the ulcers with energetic caustics, such as the chloride of zinc. 4. Gonorrhœa, venereal primary affections, mucous plates do not contra-indicate the operation with the knife. 5. If adhesions, gangrene, or phlegmonous inflammation of the prepuce, or phlebitis, etc., render reduction impossible, we must abandon paraphymosis to itself, taking care at the same time, by means of appropriate aids, to combat its complications, hasten the resolution of the swelling, and the cicatrization of the part which has ulcerated. 6. Expectation is clearly indicated in irreducible paraphymosis complicated with chancres,

until the latter are cured. Non-reduced paraphymosis leaves almost always a sub-preputial tumor formed by hypertrophy of the lower half of the prepuce. 8. We must remove this tumor by aid of a demi-circumcision on the upper part caused by ulceration. 9. Complete circumcision behind the gland in irreducible paraphymosis is only applicable when the prepuce is very long. It should only be done in the period of resolution. — *The Doctor*, December, 1872.

**Dugong Oil.**—Attention has been recalled, by the contents of the Queensland Annexe at the International Exhibition, to the medical uses of dugong oil. It has been declared by more than one medical practitioner, following Dr. Holt, of Brisbane; to possess all the nutritive properties of cod-liver oil, and to be equally useful in all the forms of tuberculous and wasting diseases which are benefited by the administration of cod-oil; it is alleged to possess an actually agreeable flavor, to be pleasant as an article of food, and to be acceptable to those whose stomachs reject cod-oil. At a recent dinner in the Annexe, the pastry was made with dugong-oil, and was pronounced to be excellent. — *British Medical Journal*.—*Medical Times*, October, 1872.

**Hypodermic Injection of Quinine.**—The salts of quinine, and especially the hydrochlorate, says Dr. Otto, are not sufficiently soluble to be commonly employed in subcutaneous injections, and the surgeon can neither be sure of the dose required nor of the rapidity of their action. He recommends the use of pure quinine dissolved in ether; this solution is much less irritating than either the acid or alcoholic solutions. Quinine dissolves in ether in sufficient quantity to produce a prompt action, and to permit a considerable dose to be injected. The quinine should be dissolved in the ether, which should then be filtered and allowed to evaporate to some extent, so that a more concentrated solution may be obtained. The solution he uses contains, in about half a drachm, five grains of sulphate of quinine. Dr. Otto has never observed any local inflammation caused by the injection of this solution, and he has injected as much as five grains of the quinine at one time without finding any other inconveniences than those which ordinarily accompany large doses of quinine, such as buzzing in the ears. The injection of this quantity rapidly produces a depression of the temperature of the body amounting to  $1^{\circ}$  C. Hypodermic injections of quinine are particularly suitable to cases of puerperal fever, and those of purulent infection; but they may also be employed with advantage in cases of intermittent fever. — *Le Mouvement Medical*, June, 1872.



## About Books.

**NEW TREATMENT OF VENEREAL DISEASES AND OF ULCERATIVE SYPHILITIC AFFECTIONS BY IODOFORM.** Translated from the French of Dr. A. A. Izard, by Howard F. Damon, M.D. Boston: James Campbell, Publisher. 1872.

THIS pamphlet refers to the use and value of iodoform in the treatment of syphilis. It can scarcely be regarded as a "new treatment of venereal diseases," as stated by the translator. It has been frequently spoken of in this journal. Dr. Izard speaks in glowing terms of his favorite remedy, and illustrates its use in many interesting cases. In the treatment of the later syphilitic manifestations, neuralgias, periosteal pains, etc., we have derived very satisfactory results from the use of iodoform, and it is a valuable addition to venereal therapeutics. In many cases of primary local lesions it affords relief to pain, and assists in the healing process. The pamphlet is carefully translated, and will serve a useful purpose.

**A PRACTICAL TREATISE ON URINARY AND RENAL DISEASES, INCLUDING URINARY DEPOSITS.** Illustrated by numerous cases and engravings. By WILLIAM ROBERTS, M.D. Second American, from the second revised and enlarged English edition. 8vo, pp. 616. Philadelphia: Henry C. Lea. 1872.

THE author of this excellent work very properly delayed the publication of a second edition until he could give the time and attention that were necessary to embody in the new issue the most recent advances in urinary pathology. Dr. Roberts affords us a good account of the present state of urinary pathology, excellent and well illustrated descriptions of urinary deposits, and that which is so essential to the practical physician, a good clinical account of urinary diseases and their treatment. In the present edition two "new articles have been inserted, namely, those on Suppression of Urine, and Paroxysmal Hæmaturia." Many new illustrations have been added to render completeness to the work. It is beyond question the very best book on the subjects it embraces in the English language. It is well printed, and the general get-up most creditable.

**THE TREATMENT OF SYPHILIS WITH SUBCUTANEOUS SUBLIMATE INJECTIONS.** BY GEORGE LEWIN, M.D. Translated by Drs. CARL PROEGLER and E. H. GALE. 8vo, pp. 249. Philadelphia: Lindsay & Blakiston. 1872.

THE author's edition of this work was reviewed in this journal about two years ago. At that time we were forcibly impressed with the merits of the

treatment and the general deductions of the learned author, who pursued his investigations with more than ordinary care and judgment. This method of administering mercury has, since the publication of this work, received the sanction and indorsement of many of the best Syphilographers in Europe and in this country. Professor Von Sigmund's interesting conclusions appeared in a recent number of this journal. There can be no doubt that in many cases, under the immediate supervision of the surgeon, this method of applying corrosive sublimate affords some advantages over the administration of the drug by the mouth, inunction, or in the form of vapor-baths. The work contains many clinical observations of value in the treatment of Syphilis. The translation is very bad indeed; it is very difficult, in many instances, to understand the meaning either of the author or the translators. We regret the original work was not placed in the hands of an expert in the art of translating from the German. The work is well printed, and externally makes a handsome little volume.

**OVARIAN TUMORS; THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT, ESPECIALLY BY OVIARTOMY.** By E. RANDOLPH PEASLEE, M.D., LL.D., etc. New York: D. Appleton & Co. 1872.

THIS admirable work was undertaken by the author "from a conviction that a practical treatise in the English language, upon the subject of which it treats, is greatly needed." He very justly observes, that "while several writers have published their individual experience, more or less extensive, as ovariatomists, no work has appeared of broader scope, which proposes to cover the whole ground, as far as is practicable within the limits of a single volume. "The first part of the work includes the normal anatomy of the ovary, and the pathological anatomy, the pathology, diagnosis, and treatment of ovarian tumors, excepting by ovariotomy. The second part is devoted to ovariotomy alone, including its history, statistics, practical details, and after-treatment. It aims to decide all practical questions by the aggregate experience of all ovariatomists up to the present time." The author tells the whole story of ovariotomy in an exceedingly able and lucid manner. To Dr. Ephraim McDowell, of Danville, Ky., he awards the credit of having first performed the operation successfully, and justly regards him as the father of ovariotomy. If there be one thing more gratifying than another in the work before us, it is the evidence, borne on every page, of sincere and honest labor in its production. That portion of the work devoted to the history of the operation is charmingly done. The author invests it with almost a romantic interest—so attractively is the tale told. In his analysis of the views entertained by the ovariatomists of the day, the author displays a thorough and comprehensive knowledge of all that is known on this branch of surgery. His deductions are most logical. The work is all, yes more, than the author claims. It is rich in research, and abounds with sound knowledge on all the collateral parts of our science

which serve to throw light on this interesting branch of medicine. The book contains many good illustrations, is well printed on the best paper, and is certainly most creditable to the American author and publisher.

**THE SCIENCE AND PRACTICE OF MEDICINE.** By WILLIAM AITKEN, M.D. The Third American, from the Sixth London Edition, edited with Additions Descriptive of Certain Forms and Types of Disease peculiar to this Country, and their Modes of Treatment, by MEREDITH CLYMER, M.D. In two volumes, royal octavo. Philadelphia: Lindsay & Blakiston. 1872.

FOR the American student and practitioner of medicine this is the best text-book. It is a "full and fair exposition of the medical art and science of the day." It contains in every department the most recent advances that have been made in the method of examining, diagnosing, and the treatment of disease. The work is produced as the joint labor of Dr. Aitken and Dr. Clymer. On assuming the editorship of the second edition, Dr. Clymer found it necessary to add much that it was essential should be known by the American physician. Dr. Aitken subsequently embodied most of the editor's work in the third edition. Besides additions to the chapters on fevers and diseases of the nervous system, the editor now contributes additional articles on Camp Measles, Typho-Malarial Fever, Epidemic Cerebro-Spinal Meningitis, Cholera Morbus, Delirium of Inanition, Chronic Pyæmia, Syphilitic Disease of the Liver, and many other valuable papers which add greatly to the value of the work. The publishers have performed their part in the production of these volumes in a most creditable and satisfactory manner.

**HISTORY OF MEDICINE, FROM THE EARLIEST AGES TO THE COMMENCEMENT OF THE NINETEENTH CENTURY.** By ROBLEY DUNGLISON, M.D., LL.D., etc. Arranged and edited by Richard J. Dunglison, M.D. 12mo, pp. 287. Lindsay & Blakiston. 1872.

AT the time that Dr. Robley Dunglison was Professor in the University of Virginia, it was the desire of Thomas Jefferson, then Rector of the University, "that the student should learn something of the earlier progress of the science and the art, while he was at the same time pursuing a course of instruction in the usual technical details of a collegiate medical education." The course of lectures prepared at that time, with some additions by the editor upon Early American Medicine, forms this volume. There was probably no man at the time more competent, in addition to his other duties, to fulfill the desire of Jefferson than our author. With a good knowledge of his subject, and of the authors who at that time were regarded as authorities on the classic history of medicine, he combined force, clearness, and elegance of expression. While the work is scarcely more than a contribution to the history of medicine, owing to the imperfect and

uneven treatment of the subject in many of the periods alluded to by the author, it is nevertheless a work of great interest. The section, added by the editor, "relating to American medical history" and "to give greater completeness to the work," fails to do more than remind the reader that we have material enough to form a very interesting chapter when the historian shall come to put it in shape and form. As a condensed history of the progress of medicine, presenting the main facts in systematic order, and without exhaustive discussion of men and theories, the book is an excellent one; it fills a void in the absence of any instruction in our schools on the history and progress of our art. The book is well made, and is creditable to the publishers.

**PRIZE ESSAY. WHAT PHYSIOLOGICAL VALUE HAS PHOSPHORUS AS AN ORGANISMAI ELEMENT? An Essay to which was awarded the Prize of the American Medical Association for the year 1872. By SAMUEL R. PERCY, M.D., etc. Philadelphia: 1872.**

In this interesting essay the author discourses in a clear and able manner on the value of Phosphorus. His studies, and the attention he has paid to physiological chemistry and therapeutics, eminently fit him to speak as an expert. The paper is an exceedingly interesting one to those engaged in the scientific pursuit of medicine. The therapeutic value of phosphorus is not yet sufficiently understood to enable us to avail ourselves of the full advantages likely to be derived from its use in many forms of disease.

**HYSTEROLOGY: A TREATISE, DESCRIPTIVE AND CLINICAL, ON THE DISEASES AND THE DISPLACEMENTS OF THE UTERUS. By EDWIN NESBIT CHAPMAN, M.A., M.D. 8vo, pp. 504. New York: W. Wood & Co. 1872.**

In the preface to this curious production the author tells us, that "being called upon some twelve years since to fill the chair of Clinical Midwifery in addition to that of *Materia Medica* and Therapeutics," he "accepted the position with great reluctance and many misgivings, from the fact that, both in dispensary and private practice, each and every plan of treatment then in vogue had in his hands proven unreliable." The attentive reader of the work will, we think, agree with the author in his own estimate of his unfitness for the position he assumed as a teacher. The plan now generally pursued by many of those holding chairs in our schools equally unfit for the positions is to remain discreetly silent, and the silence thus put down to the score of wisdom more than compensates for the loss of the little *éclat* that is sometimes gained by the production of a common-place book. The new title, *Hysterology*, is intended by the author to indicate that his work relates only to that branch of Gynæcology which treats of diseases of the womb. The author reports more or less in detail the histories of three hundred and fifty-seven cases—they do not enhance the value of the work or add to the reputation of the author. The book contains no new views, nor is any additional light thrown on the

pathology or therapeutics of this branch of science. The author would have done well to have omitted entirely his bad Latin and "fearful" rhetoric. The book is illustrated with many wood-cuts, is well printed and well bound.

**EPIDEMIC CEREBRO-SPINAL MENINGITIS**, with an Appendix on some Points on the Causes of the Disease as shown by the History of the Present Epidemic in the City of New York. By MEREDITH CLYMER, M.D. Philadelphia: Lindsay & Blakiston. 1872.

THIS exceedingly interesting little volume contains a summary of the clinical history and pathology of cerebro-spinal meningitis, with an abstract of all the epidemics of the disorder which have happened in this country and in Europe. The author believes that it is not "a simple or idiopathic inflammation of the membranes of the brain or spinal cord, nor of typhus fever, but a substantive disorder, consistent with itself in all material points, with constant symptoms produced by a constant cause, and is entitled to be described and regarded as a distinct disease whose proper nosological place is amongst general diseases born of an external morbid poison." A map carefully prepared, under the direction of Dr. Moreau Morris, late Chief Sanitary Inspector of the City of New York, accompanies the work and illustrates the distribution of the disease as it prevailed in New York City. The influence of certain local factors, and particularly of faulty house drainage, in individual cases, is shown by abstracts from many cases. The volume, though exceedingly modest in size, contains much valuable information, and is a contribution to medical literature that cannot fail to serve a scientific and useful purpose. The learned and practical attainments of the author are admirably shown in the course of the work.

**THE PATHOLOGY, DIAGNOSIS, AND TREATMENT OF DISEASES OF WOMEN, INCLUDING THE DIAGNOSIS OF PREGNANCY.** By Graily Hewitt, M.D., F.R.C.P. Second American from the third London edition, Revised and Enlarged. Illustrated. Philadelphia: Lindsay & Blakiston, 1872.

IN the third edition of this excellent book the author has carefully traversed the ground of his former labors, and now presents his more matured views of the pathology and treatment of diseases of the uterus and the kindred diseases of women. The modeling of the present edition is a decided improvement over the last. The work is far more systematic from a pathological point of view, and the general instructions on diagnosis and treatment have not been lost sight of in the change. It is well printed and bound.

## New Instruments.

### A NEW PAIR OF DEPILATING FORCEPS.

BY M. H. HENRY, M.D.

IN his admirable work on parasitic affections, Dr. M'Call Anderson, when speaking of depilation and the forceps to be used for that purpose, states that he thinks "they should be about three inches long, and should not have a strong spring, otherwise the hand soon becomes fatigued in using them. They should be made so that the two extremities come together very exactly, and do not slide the one upon the other. Each extremity should be a couple of lines broad, so that a fasciculus of hair may be caught up at one time when required, and should be furnished on the inside with denticulations after the manner of a file. It is of great moment that the denticulations should be very fine and also blunt, else the brittle hair may be cut across by them; and they must of course be arranged transversely, for the hairs would slip through them if they had a longitudinal direction."



I agree perfectly with Dr. Anderson, and can indorse all that he says on the necessity of having carefully-made forceps for the special purpose of depilation, but the instrument which he is in the habit of using scarcely possesses the essential wants which he so well describes. At least, such has been my experience in practice. In the instrument shown in the accompanying illustration, I have endeavored to overcome the objectionable features which exist in all those used for depilating purposes. My own forceps are five and a half inches long, and have a very light elastic spring which is conveyed by means of the shape, temper, and fastening of the blades at the upper end. There is scarcely any fatigue in using these forceps, so nicely are they adjusted

and so slight the effort required to work them. The additional length allows of more extension of the fingers over the forceps, and necessarily avoids the chance of the fingers becoming cramped. The joint near the ends of the blades affords strength and perfect adjustment to the opposing denticulated surfaces. The denticulations are, of course, made in the manner and for the reasons described by Dr. Anderson.

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### Obituary.

BENJAMIN GODFREY, M.D., M.R.C.S., L.S.A.

THIS gentleman died at Enfield, on November 22d last. He was born at Romsey, Hants, in 1829. In 1840 he was entered at Guy's Hospital, where he subsequently became House Surgeon. In November, 1845, he engaged in private practice at Enfield. He was the author of many contributions to medical science and to dermatology. Besides many contributions to the medical journals, he was the author of "Vaccination, its True Use and Power," "Porrigo *versus* Eczema," "Cases of Diphtherite," and recently published a popular treatise on "Diseases of the Hair." He was a cultivated man, and esteemed by a large circle of friends.

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### Editorial.

WITH the present issue we commence the fourth volume of this Journal. It is three years since the first number was published. To those who feel an interest in the advancement and scientific progress in the department of medicine to which our pages are devoted, it will be gratifying to know that this publication is recognized by the profession, both at home and abroad, as a standard authority. This general acceptance of the Journal we feel is due, first, to the want as well as usefulness of such a publication, and secondly, to the manner in which it has been conducted. The last assertion is based on the very complimentary manner in which our efforts have been received

by our learned *confrères* of the medical press, and those members of the profession who have devoted themselves to the study of venereal and cutaneous diseases. The original aim and purpose of the Editor, "to make the Journal on the one hand a medium of communication between professed syphilographers and dermatologists, and on the other hand the means of laying before the profession at large a digest of the progress made in these branches of our art," will be constantly borne in mind, and accomplished, we hope, to the future satisfaction of our readers.

Our best efforts have been exerted to obtain sound, practical, original contributions. The best attestation of our success is seen in the manner in which many original articles have been quoted by, and translated into other languages for other journals. In the selections from foreign periodicals, we have chosen, to a great extent, such as were most likely to be of interest and benefit to the general practitioner of medicine.

In the reviews, while we have been critical, we have endeavored to be impartial. In the interest of our readers, we have plainly spoken the truth of the special contributions submitted to the profession, and in which we felt our readers had an interest. While sitting in judgment on the labors of our *confrères*, we have gladly availed ourselves of every opportunity to award praise, and have not hesitated to condemn when the advancement of scientific medicine demanded such a course. Without dwelling further on the special features of this Journal, we have only to add, that we shall continue to exert our very best efforts in the cause, advancement, and diffusion of sound information on all venereal and cutaneous diseases, bearing constantly in mind, when making selections for our pages, that the value of all contributions depends on the capacity, as well as the veracity of the contributors.



# THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY.

APRIL, 1873.

## Original Communications.

### THE TREATMENT OF SYPHILIS DISCUSSED AT THE MEDICAL CONGRESS AT LYONS; WITH REMARKS.

By M. H. HENRY, M.D.

FROM the reports that we have received of the discussion which took place, on the treatment of syphilis, at the Séance of the twenty-fourth of September, 1872, of the Medical Congress at Lyons, we are led to conclude that very little light was thrown on this important subject. Judging from the attendance, and the number of participants in the discussion, we are forced to believe that the subject did not receive either the attention or consideration it justly deserved. This will be deeply regretted by all who are interested in the advancement of our knowledge of the pathology and treatment of this formidable disease—a disease which may yet, as said by Andral, prove the key-note to all pathology. Those who took part in the discussion seem to have contented themselves by detailing their own peculiar methods of administering drugs, which in most cases have been published, and were sufficiently well known, neglecting entirely the great question of prophylaxis and the control of the disease in large communities. It is noticeable that although it was well known that this subject would be discussed at the meeting of this congress, the representation of foreign syphilographers was exceedingly small. Our own

country had no representative whatever. There can be no doubt that had the question received the careful and dispassionate consideration which its importance fairly deserved much good would have accrued to the profession, as well as the public. Many points in pathology and practice might have been carefully argued, and even the question of the so-called syphilitic blood-corpuscle might have been floated in this atmosphere of cosmopolitan science and settled, at least, until better evidence is afforded of its claim to serious consideration. We, of course, do not desire to convey the impression that the discussion was not an interesting or useful one; but the subject, we think, was of such importance that it deserved larger and more general treatment. The partial failure to accomplish that which was intended was serious to this extent—that it will deter others from making any further attempt for some time to come—postponing for an indefinite period the good that might have resulted had the views of the projectors been fully realized. Before presenting some views, which we have entertained for some time past, on certain measures to advance the study in the pathology and treatment of syphilis, we purpose giving concise abstracts of the views expressed by those who took an active part at the meeting of the congress.

At the opening of the Séance Mr. de Méric, of London, stated that he was in favor of a mercurial treatment in all the phases and degrees of intensity of syphilis.

M. DIDAY only referred to the preventive treatment. Should we give mercury to a man who simply has a chancre? He gave the statistics of seventy-four patients, of whom forty-nine had not taken mercury during the existence of their chancres and twenty-five who had taken it. In these patients secondary symptoms had shown themselves six days later in the second than in the first series. Of those who had not taken mercury nearly thirty-four per cent. had had *syphilis faible*, and ten *syphilis forte*, whilst of those who had taken mercury nearly twenty-four per cent. were the subjects of *syphilis faible* and twenty per cent. *syphilis forte*.

M. PACCHIOTTI, of Turin, spoke in high terms of mercurial

inunctions, and thought they presented a method of cure now too much neglected.

M. CLERC, of Paris, expressed absolute confidence in mercury. He himself had accidentally been inoculated with syphilis, and he had taken mercury. He thought it a specific against a specific disease, a true blessing of Providence. He recognized the fact that it did not always cure, and mentioned some of the causes of ill success: first, when administered to cases wrongly diagnosticated as syphilitic; in cases where insufficient doses had been given; and when administered in an improper manner; in peculiar states of the organism, such as plethora or anæmia; in cases of want of exercise which tends to impair nutrition; in cases of debauch and drunkenness; finally, in an abuse of tonic regimen, which has been too much indulged in recently. M. Clerc thinks that when given in very large quantities mercury may be retained in the brain or kidneys, and there produce serious troubles. As regards the time to commence the use of mercury, he thinks that it should be given as soon as the chancre is discovered, and states that he has seen better results in such cases than if the patients had not taken the drug until later on. M. Clerc finally alluded to the benefit of mercury to the pregnant woman. In reply,

M. DIMAY said, that although he gave mercury it was only when he thought it necessary. If he, like M. Clerc, had contracted syphilis, he also would take mercury, because he, like M. Clerc, had arrived at an age when he could not rely upon the natural processes of elimination. In defending his statistics against the objection that the patients had not taken enough mercury, he said that admitting the insufficiency of the dose, this would not explain why these patients should not have been more profoundly affected than those who, instead of having taken little during the chancre, had not taken any, and that the five patients who had been mercurialized at the commencement had taken mercury to salivation. The causes of failure of mercury as enumerated by M. Clerc are simply, either obstacles to its action or to the cure of syphilis, and do not do away with the real want of curative power of the mercury. This want of power is abundantly proved by cases of relapse

after prolonged mercurial treatment. M. Diday cited five cases. He stated finally, that syphilis was equally as severe in those who took and those who did not take mercury, but that mercury was beneficial in the pregnant state.

M. ARMAND DESPRÉS, of Paris, stated in a note, his convictions that mercury was useless and even baneful in syphilis, while M. Martin Laplagne, of Paris, also by note, concurred in the eclectic opinion of M. Diday. A note was also received from Dr. Drysdale, of London, in which he expressed his hostility to the use of mercury.

M. DRON made some remarks upon hypodermic injections of sublimate in syphilis, in which he stated that in general he was disappointed with them as a method of cure, and that although they sometimes produced good results it was only in very rare cases.

M. GAILLETON said, that although mercury did not cure syphilis, it acted better than any other agent. He gave it at the commencement of the secondary period, and continued it six days after the disappearance of the symptoms. He did not give mercury to avoid the procreation of syphilitic children. He thinks that mercury has no influence over tertiary lesions, but it may be of service in preventing relapses.

M. CLERC responded, that his conviction was strong, that if any of the gentlemen present had a chancre he would take mercury immediately. Ricord has followed that practice for forty years, and he thought that that was a valuable argument. He had always given mercury from the beginning, and had always noticed a milder character of the disease. At the commencement of the second incubation, he augmented the dose. He thought it important to remember that severe symptoms followed upon previous mild ones. He stated that he persisted in his opinion, that mercury was beneficial because it attacks the cause of the disease in the blood. He has noticed that those who took mercury procreated healthy children, while those who had not had procreated syphilitic children.

M. RODET, at the commencement of his practice, had given mercury for chancres, and had observed relapses, as well as in those cases in which he had not given it. He had settled on

the practice of giving mercury during the chancre. He had found that mercury cured cases in about six weeks. He thought it necessary to augment the dose, and frequently change the preparation. He used the cyanide of mercury, corrosive sublimate, and the protiodide. He thought about five months was the length of time required.

M. DIDAY replied that he thought that four and a half months of preliminary treatment, and even six months for a relapse, corresponded more fully to the time required by nature for a spontaneous cure.

MR. DE MERIC said, that the statistics of M. Diday had made quite an impression upon him, but he felt encouraged to persist in the conscientious manner advocated by M. Rodet. He lamented the effect produced on the minds of patients by the existing differences of opinion. He wished to insist particularly upon the importance of promptly treating a chancre on account of its contagious properties. He advocated the necessity of giving mercury to a pregnant syphilitic woman, and also in syphilitic diseases of the eye.

M. CLEMENT thought that mercury was not a specific, but that its action was confined to the process of elimination. He alluded to its want of control over tertiary symptoms. M. Clement was not prepared to admit that any one specific existed against the disease in the first period, and another in the secondary period. It was contrary to all well-known laws of pathology.

MM. GUILLARD (d'Aix), GUBIAN (de la Motte), et QUIOC (d'Aix), were prevented, from press of time, from reading papers on the treatment of syphilis by mineral sulphur waters. These papers are to be inserted in the published transactions of the congress.

It is well known that comparatively little attention has been paid to the collection of statistics of a trustworthy character of the phenomena of syphilis. This may be accounted for from the fact that only a very small proportion of those who suffer from the disease come under the care of experts who utilize the information they gain by clinical observation. It cannot, of course, be expected that every one who treats venereal diseases

will take any special pains to record their observations. Many who might be induced to do so are deterred from want of time, the ability, and other causes which could be overcome if a simple style of record were prepared in which the main features of the disease could be noted in a printed form of blank prepared for the purpose.

If any branch of medicine is to be put on a sound basis it can only be accomplished in the manner, and on the same principles, pursued in other departments of science. Hitherto it has been too much the habit to collect statistics for the purpose of sustaining a theory—too seldom to throw broad rays of light on our knowledge of disease. This has certainly not been creditable to us as scientific observers. Statistics of venereal diseases will not serve any scientific purpose until a system is adopted by which every practitioner may be enabled to register in a certain definite form a full and distinct account of every case of venereal infection coming under his care, and which may be placed at the disposal of those who are devoting their attention to the solution of the mysterious problems of the evolution of syphilis. This will doubtless seem a very difficult task. It is, but the difficulties may be overcome in the manner we suggest:—to prepare blanks of a uniform size, with printed suggestions calling for full answers on all the special points and features of interest in the history of syphilitics. We feel assured there is ability enough, and ambition enough, amongst the general practitioners to assist in this work when their attention is fairly called to the subject. We feel assured they will do their share in rendering this service to the common cause of scientific progress. To those in general practice we must look for assistance in the advancement of our knowledge of special diseases. In this connection we cannot avoid alluding to the notorious neglect, of all really scientific labor, on the part of those who hold hospital appointments in this city, or records of any real value in the branches to which the pages of this Journal are devoted. Many of the wards of the hospitals are devoted to venereal and skin diseases. Many cases are of great interest, but the interest attached to them is buried, to all intents and purposes, so far as they affect scientific progress and our knowledge of special pathology.

In the treatment of syphilis the first point to be considered is the agents to be employed in combating the disease. It seems to us that the best experience has sufficiently demonstrated the value of mercury, in spite of the arguments of those who are opposed to its use. The weight of evidence afforded by the best syphilographers sustains this view. In the selection of the particular form of mercury to be used, the purpose is best served in the selection of the preparation that will accomplish the end in the least prejudicial manner to the system. We are fully in accord with M. Clerc and other French syphilographers who, in the early stages of the disease, are in the habit of administering the protiodide of mercury. In some instances inunctions and injections possess advantages over the administration of the salt by the alimentary canal. We are inclined to believe that in a large proportion of cases mercury should be administered as soon as infection of the constitution is manifested. This will serve as the rule. Cases will doubtless occur where it may be advantageous to exhibit it during the existence of the primary sore. In these desultory remarks we cannot enter into the details which are all-important to the subject of the systematic use of mercury: suffice it to say, we believe that the alterative effect of mercury may, as a rule, be continued as long as there is any physical evidence of the existence of the disease. In the later lesions of syphilis mercury may, at times, be administered with advantage in combination with the iodide of potassium. On the latter we, of course, place our main reliance in all late affections. In a previous number of this Journal we took occasion to dwell particularly on the value, advantages, and even necessity of very large doses of this drug in the treatment of severe tertiary affections of the nervous system. The generous use of tonics will suggest itself when indicated, and scarcely needs any serious consideration at this time; as auxiliaries to mercury and the iodide of potassium they will often prove of the greatest value, assisting very largely in the cure.

A NEW METHOD OF DILATATION BY MEANS OF  
SPONGE TENTS IN CASES OF PHIMOSIS INDUCED  
BY VENEREAL SORES.

By WALTER R. GILLETTE, M.D.,

*Visiting Physician to Charity Hospital, Blackwell's Island.*

UPON reading the article "Prophylaxis and Treatment of Phimosis" in the October number of *THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY*, I am led to make known a plan of treatment in cases of chancroids and chancres concealed through phimosis, secondary to their inflammatory or exudative results, which I have practised for the last three years in the venereal wards of Charity Hospital. I am not aware of this method having been adopted by any one else in these cases, but I hope the method may be tried and the results still further published by others.

The cardinal rule in the treatment of the so-called venereal ulcers, chancroid and chancre, is to destroy them as completely and rapidly as possible.

This is not only prophylactic to those still uncontaminated, but is also prophylactic toward the secondary consequences of acute inoculation, bubo, inflammation, phimosis, sloughing phagedena, and serpiginous ulceration in the case of chancroids and inflammatory phimosis, together with still more rare sloughing and phagedena in case of chancre.

With all the differential points of diagnosis at hand between chancroid and chancre, I think that many of us who see much of venereal ulcers are a little slow to diagnose chancre pure and simple, in a given case of sore, when the history and physical signs apparently point toward it. This caution has grown out of the fallibility of all such histories, as well as the modification of sores that must necessarily vary with the condition of the individual upon whom they are implanted, as well as by the home treatment they have undergone before presented to us.



The introduction of that mongrel "mixed chancre" has added another confusion whose only merit exists in its being our safe resort when our diagnosis and prognosis have led us somewhat astray. The result of all this uncertainty leaves us one pretty plain course to pursue, when a venereal sore, no matter in what stage, presents itself to us for treatment, unaccompanied by any of the syphilitic eruptions, and that is immediate efforts toward its destruction.

It is not necessary to recapitulate the local treatment when the sore is accessible.

When it is *inaccessible* to sight by means of phimosis, we still have a method of forming some idea of its physical characteristics by means of internal palpation, or the touch; and still further, by the application of the method of dilatation of the phimosis by means of the sponge tent, or compressed sponge, we may convert it from a concealed to an open sore, and place it immediately within the reach of caustics. I have never seen a chancroidal or chancrous phimosis so contracted as not to admit the extremity of the little finger, with a little patience and care used in the manipulation.

The little finger should be well oiled, and while the fingers of the other hand withdraw and support the prepuce, it may be inserted carefully and slowly, with moderate pressure, when it will pass into the preputial orifice with but little pain to the patient. The finger once in can easily make the sweep of the glans penis, the corona glandis and the mucous membrane of the prepuce, discovering the number, location, degree of ulceration and induration of the hidden sores. This is the only accurate method of palpation. The usual method, that almost alone practised, is the external method, whereby we are called upon to determine the existence of sores through the media of inflamed, infiltrated and hardened skin and connective tissue. There can be but one—the internal method of palpation—to choose, to one desirous of properly appreciating his case. I believe this method is as important and necessary to these special forms of venereal complications as is the vaginal or uterine touch to the proper appreciation of vaginal or uterine disease. I urge this method, as it is little practised, and but very little taught.

Having thus discovered the exact location and number of the sores, we are more ready to go a step further, to bring them to light, and apply our treatment directly to them.

This I do by means of the *sponge tent and compressed sponge*. The mechanical effect of these appliances in phimosis is obviously the same as that practised upon the os and cervix uteri. The method is quite similar. The patient is put to bed—an intra-preputial injection of carbolic acid, grs. v. ad aq.  $\text{℥j}$ ., or simple salt and water thrown in to wash out and cleanse the parts. Then a *transverse* section of a sponge tent is made, the *larger* extremity of which is adapted closely to the phimotic preputial orifice. This being oiled, is inserted deep down to the glans penis, and allowed to remain. The *base* of the triangular section of the sponge tent being inserted, instead of the apex, holds it in position and keeps it from slipping out. When this has dilated to its full extent it may be removed, and an examination may be made. If the sore is still beyond our vision, if we are still unable to reach it with our caustics, a piece of compressed sponge is adapted to the enlarged opening, and the dilatation carried to the full extent necessary. If there is much pain attendant upon this process, as sometimes occurs, an opiate is administered.

By this method I have been able to reach a class of sores that I formerly treated blindly and unsatisfactorily, temporizing with medicated injections. The method of dilatation is very easily and rapidly practised in those forms of phimosis where there is not a redundancy of tissue with œdema and inflammation, but simply a close-fitting prepuce, the orifice of which is contracted by a thin cord-like induration. This form dilates most speedily and happily, and may be effected by crowding into the orifice a circular piece of compressed sponge.

This method requires more attention upon the part of the surgeon, but this is not to be measured beside the fact that we are thus enabled to transform a concealed into an open sore, and treat it in a scientific manner.

ON A PECULIARITY OF THE PAPULAR SYPHILIDE OF THE NEGRO.

By R. W. TAYLOR, M.D.,

*Surgeon to the New York Dispensary: Department of Venereal and Skin Diseases.*

I HAVE observed upon two occasions a peculiar appearance of the papular syphilide of the negro which, I think, has not as yet been mentioned, and which is interesting in its diagnostic bearings. It is undoubtedly well known that syphilitic papules in the negro are, in the main, similar to those of white subjects; that is, that in their varieties, course, evolution and decline they are not dissimilar to those of the white races, except in the fact of a more or less considerable pigmentation, and it is in the varying condition of this pigmentation that the exceptional and interesting features of these syphilides are to be observed. Generally speaking, the syphilitic papule is a few shades darker than the integument upon which it is seated, a fact which can be readily demonstrated upon all subjects, except those who are jet black, and upon them there is scarcely, if any difference in color between the papular lesion and the skin proper. Sometimes in those cases in which the papules are rather darker than the integument, irregular spots or lines of dirty-white will be observed on the surface of the papule, a condition which is more frequently observed where there is a tendency to desquamate and is more pronounced in proportion as the desquamation is copious. This same appearance is generally observed in cases of psoriasis in the negro, particularly in old cases. It being the rule, then, that syphilitic papules in the negro is darker than the surrounding integument, and that dirty-white spots or lines may sometimes be seen on them; a person would be unprepared to arrive at a satisfactory diagnosis in a case in which nearly all of the papules were of a snow-white appearance.

In 1870 a negro came to my service at the New York Dispensary, presenting a typical indurated chancre, which in due time was followed by a very copious papular eruption. The papules as they came out appeared like dark spots, which very

soon became salient. Gradually as they increased in size and height I observed that they became much whiter. During this time there was to be observed a slight furfuraceous desquamation. At the end of a month these papules, which were very generally distributed, and were of the large flat variety, had reached their full development, and upon several regions of the body they presented the snow-white appearance I have already alluded to. The surface of the papules was slightly rough, presenting the roughened appearance of blotting paper. There was to be observed on each a quantity of small adherent epidermal scales; but it was evident that the whole layer of the epidermis had not been fully cast off. Many papules were surrounded by a very minute areola, a little darker than the integument, which was quite black. In striking contrast with this black surface was the surface of many of the papules which were quite white, in fact nearly of a snow-white in spots where the skin was kept clean, and of slightly dirty-white elsewhere. The patient was at this time put upon a mercurial treatment under which the papules disappeared in about a month: There were two other interesting features of this case. The first was the existence of the enormous adenopathies peculiar to the syphilitic negro; the other that the supra and infra clavicular regions were not invaded by the papules. The fact that these regions are in the majority of cases left free while other portions of the body are covered by papular syphilides, was, I think, first mentioned by me in a paper on the papular syphilides in the issue of this Journal for April, 1870.

Having observed this case during the greater part of its early history I was satisfied of the undoubted syphilitic nature of these lesions, particularly as many of the papules on the interior and posterior portions of the legs presented the appearance I have already described as normal to these lesions in the black subject.

To settle in my mind if possible the cause of this unusual white appearance, I excised a papule in which it was well marked, and after due hardening in Muller's fluid, examined it under the microscope. The appearances were as follows:—The papillæ were greatly enlarged and infiltrated with the peculiar round cells of syphilis and the deep layers of the epi-

dermis also, and here I could scarcely observe the well-marked pigmented layer. Here and there was a somewhat darkened cell, but the stratum of such cells was nearly effaced. The question arises from this observation, What is the precise change which takes place in the deep or malpighian layer of the epidermis? Are the abnormal cells proliferated with such rapidity and in such great quantities that they replace for the time the normal cells? Or are the normal cells developed in a faulty manner, having nuclei which are not pigmented while the cell-body likewise has not the usual slightly dark appearance? I am inclined to lean towards the opinion that in the inflammatory process the normal cells are hurried into existence in an immature state, and that they and the abnormal cells go together to produce the tissue which presents the markedly white appearance. This supposition has as a corroboration the fact that the malpighian layer in this case presented well-marked embryonic epidermal cells. I have seen a slightly whitened appearance in the patches of psoriasis, but never a distinctly white color. In the present case the desquamation was entirely different from that of psoriasis. I have since observed this same feature in another case of the papular syphilide in the negro.

## Clinical Contributions

### A CASE ILLUSTRATING AN UNUSUAL FEATURE OF TINEA VERSICOLOR.

By R. W. TAYLOR, M.D.,

*Surgeon to the New York Dispensary: Departments of Venereal and Skin Diseases.*

WHILE making the regular visit to the late Stranger's Hospital in August, 1871, I was asked by the house surgeon to see, as he said, a very curious eruption upon a patient who came in to be treated for tertiary syphilis. It so happened that illness had prevented me from visiting the hospital for a few days before, and this patient had been seen and placed under treatment by the house surgeon. As we walked to the private room in which the patient stayed, the doctor told me that the man had been taking large doses of the iodide of potassium for four days, and that the day before he had noticed a brownish red rash all over his back, which he and the other *internes* took to be measles. After questioning the man I found that he gave a very clear syphilitic history, and that the lesions for which he had applied to the hospital were disseminated tubercular syphilides having a slight ulcerative tendency. When the man had taken off his shirt, I saw that his back was covered with a dark bluish-black eruption, and presented the appearance of a skin which had been daubed with ink made of iron and logwood. Upon close examination I saw that there were some spots not discolored in this way, and upon scraping the skin with the nail I saw that the integument underneath was normal and not at all hyperæmic. I also saw a decided tendency to desquamation in small branny scales. The extent of the eruption was from the shoulders to a line on the trunk corresponding to the coats of the ilea. The centre of the patch was composed of a single sheet of discolored integument, and on the edges corresponding with the posterior angles of the ribs and rounding portion of the trunk the eruption was scattered into small round spots. I suspected that it was an unusual form of tinea versicolor, and for that reason examined the patient more fully and carefully. On the sides corresponding to the portions where the arms rest upon the body when pendant, I saw a typical sparse tinea versicolor, and on looking on the chest I found it there in solid patches, surrounded by scattered spots. I said to the *internes* who were with me that I thought it a case of tinea versicolor, and asked them to scrape off a few scales and examine them with the microscope. The result was that we

found the *microsporon furfur* in large quantities; so this of course confirmed my diagnosis. I was then asked how I accounted for the unusual appearance presented by the eruption. The man was evidently scrupulously clean, and by his own statement I learned that he had not made any application to his back that eliminated dirt and any discoloring applications. So it remained to be explained why the eruption was darkened, and that occurring only on the back. Upon looking carefully at the man's shirt, I found that it was made of very thin, fine linen, which had been slightly starched, and I saw that it was a little stained on its back. This aroused my suspicions. It is necessary to add that the weather was terribly hot and the patient seemed to perspire very freely. Upon inquiry I learned that the man had been taking large doses of the iodide of potassium, and that he had been lying on his back sweating profusely: so this cleared up the doubt in my mind. Here, then, was a man with a copious eruption of pityriasis or *tinea versicolor*, who was sweating profusely, and a portion of his skin was in close contact with a starched shirt. This case proves undoubtedly a well-known fact, that iodide of potassium is eliminated by the sweat glands, and presents an interesting clinical feature. In looking through the literature I find no similar observation; and though authors describe a *pityriasis nigra*, it is evident that they have alluded to the melanic spots of Wehrhoffs disease or to other dischromatous affections. I have seen the clinical features of pityriasis or *tinea versicolor* much marked by dirt and filth, but never to such a degree as to lead to any mistake of diagnosis. The fact that the house physician had seen this eruption when red shows that the staining went through the stages of red mahogany color to black.

## Reviews.

### THE COMMUNICATION OF SYPHILIS IN THE PRACTICE OF VACCINATION.

THE interest attached to the possibility of communicating syphilis by means of vaccine lymph taken from persons suffering from syphilitic infection, has again attracted the serious attention of the profession in England. The reports of the following series of cases, presented to the Royal Medico-Chirurgical Society of London, by Mr. Jonathan Hutchinson, afforded him an opportunity to maintain the ground he had taken about a year since, and to place the question of the possibility of communicating syphilis by the use of impure vaccine lymph beyond the possibility of doubt. The interest and value of the report is greatly enhanced by the concluding remarks of Mr. Hutchinson. The question has already been reviewed in this Journal, but the additional light afforded by Mr. Hutchinson demands a few further words of comment. There can be no doubt that much of the interest that centres in the publication of these last contributions is due to the fact, that in England grave doubts have until very recently existed regarding the possibility of communicating syphilis in vaccination. These views have been largely and stubbornly entertained by many of our accomplished English friends. The well-known blood-inoculation theory of Viennois was, it is true, regarded as ingenious; but it was not fairly considered until the investigations of Rahmer, Lanoix, Köbner, and others, assisted by the remonstrances of the public, at last forced the question before those most competent to judge impartially, and, to use a familiar expression, these last contributions of Mr. Hutchinson have served to clinch the nail already well driven in. The practical genius of our English friends will soon be brought to bear on the subject, and the best measures will be adopted to prevent in the future any possibility of communicating syphilis



through the use of impure vaccine lymph. There will doubtless be an increased demand for animal virus, and many will again advocate its sole employment. With the enlightened it will serve only to establish additional care in the selection of, and manner of drawing the lymph from the vesicle.

The following are the histories of the cases, with the remarks of Mr. Hutchinson:—

**THIRD SERIES.—Case.** This patient was a respectable small tradesman, aged 46, who came under Mr. Hutchinson's care at Moorfields Ophthalmic Hospital with double iritis. Examination disclosed the presence of a copious dusky rash and symmetrical ulcers in the tonsils. The ordinary questions as to syphilis were denied, and careful inspection of the genitals gave an entirely negative result. On one arm, however, two or three scabbed ulcers were found, as large as shillings, with dusky indurated borders; and there was an indolent bubo in the corresponding armpit. He had been vaccinated three months before admission; the punctures took, and behaved as usual; but when just healed over, a month after the operation, they inflamed and broke out into sores. About a fortnight later (six weeks after vaccination) the rash appeared, and at the end of another month the iritis set in. The nature of the disease had not hitherto been diagnosed, and no specific treatment had been used; under the use of mercury both iritis and rash were cured. This man was seen by many medical men at the hospital during the two or three months of his attendance, and there could be no doubt about the nature of his malady. Although his vaccinator had not diagnosed this man's case, he had had much trouble with the arm-sores, which from his subsequent account would appear to have been at one time almost phagedenic. Besides the patient, about twelve others were vaccinated from the same baby, three of them being the patient's children, young adults; in these three no ill results had occurred; the remaining cases had not been pursued further (for prudential reasons detailed in the paper), but the vaccinator believed that none of them had any trouble, save one or two in whom a little difficulty occurred in the healing of the vaccination-spots. The vaccinator said that the baby used appeared in excellent health at the time. When seen by Mr. Hutchinson at eight months old it was fat and well grown, the only sign of inherited syphilis being the markedly sunken bridge of the nose—a symptom to which the author attached considerable importance, and from which he predicted the future occurrence of confirmatory events. The child was the third, and the only living one, two having died in infancy. In favor of this man's syphilis having been gained during vaccination, there were the occurrence of induration, etc., in the vaccination-scars at exactly the interval which was known from former cases to elapse between inoculation with syphilitic virus and formation of the chancre, the occurrence of axillary indolent

bubo, the eruption and other secondary symptoms following the arm-sores at the proper period, and, lastly, the total absence of any trace of chancre elsewhere, and the extreme improbability of syphilitic inoculation of the vaccine-sores after the vaccination. Against this conclusion there were only the negative facts afforded by the apparent immunity (which might, however, yet be disproved) of the other persons vaccinated, and the slight evidence of syphilis in the vaccinifer.

FOURTH SERIES.—*Case.* A lady, aged about 45, came to Mr. Hutchinson as a private patient in December, 1872, for a vascular growth from the urethra. During examination the remains of a copious, dusky, evidently syphilitic rash were found. On inquiry she stated that she had been very ill after vaccination, and had had a severe rash and inflammation of one eye. Further examination showed the presence of a dusky scar at the seat of one of the vaccination-punctures, very different indeed from a normal vaccine cicatrix; synechiæ were also found in the left eye, proving past iritis. She was vaccinated in May, 1871, by four punctures, none of which took; just a month later one of them inflamed, and became a hard-edged ulcer, lasting three months. Two or three weeks later (about two months after vaccination) the rash appeared copiously, and she fell into ill-health. From the vaccination in May to the early part of September, she had no specific treatment, which probably accounted for the severity of the rash, etc. After this she took small doses of iodide of potassium and bichloride of mercury, under another practitioner, for nine months, when she ceased all treatment, and went for two months to the sea-side. At the end of this period her left eye inflamed (iritis), and the rash, which had been nearly well, relapsed. For the iritis she was treated at Moorfields Hospital by a colleague of Mr. Hutchinson, its cause and origin being suspected, but not followed out. It was several months after her admission to the hospital that she came under the author's care for a complaint having no connection with the syphilis. She was vaccinated from a baby's arm, and at the same time her two grown-up daughters. A number of others had previously been vaccinated from the same child, but these had not been traced. The two daughters, however, appeared to have escaped all contamination. The baby was said by the vaccinator and its own mother to have looked quite well at the time. As soon as dentition began, however, it had some very troublesome sores about the anus (? condylomata), for which it was under treatment three months at a dispensary. It was the third child. All were living. The eldest, a boy about six or seven years old, showed no signs of inherited taint; the second, a girl of five, now had a large forehead, and she had exactly the same sores about the anus and at the same age as the vaccinifer; the vaccinifer itself also now had a large forehead. The author called attention to the fact that these two cases of vaccination-syphilis were not, as were the first and second series, sent to him because he was known to be interested in the subject, both of them having occurred

in the ordinary course of practice. Several cases of supposed syphilis from this cause had been sent to him, but the diagnosis in these was not confirmed.

"CONCLUSIONS AND GENERAL REMARKS.—These were summed up chiefly as answers to certain questions. The author first asked: What are we to infer from the circumstance that, when syphilis is conveyed in the practice of vaccination, it does not affect all those vaccinated from the tainted source? He answered: We must believe that the specific poison of syphilis is either not contained in the vaccine lymph at all, or is not equally diffused through it. Thus, in the first series of cases, two out of twelve vaccinated escaped syphilis; in the second series, out of about twenty-six vaccinated, more than half escaped; while in the third and fourth series only one out of at least twelve vaccinated from each vaccinifer was known to have been syphilized. It must be borne in mind, however, that the last two series had purposely not been followed up exhaustively, and that the proportion tainted with syphilis was not improbably greater than appeared at present. Again, from the evidence of these series of cases there was no doubt that one might vaccinate from a tainted vaccinifer without conveying syphilis; and, on the other hand, it was possible to convey syphilis either with or without the production of a normal vaccine vesicle. Vaccination from a child evidently syphilitic was known to have been done inadvertently several times without bad result, and probably it had often occurred without being known. These points of clinical evidence made it highly probable that the syphilitic virus was not contained in the vaccine virus, but was derived from, or associated with, some cell-elements of the blood, and probably these need not be visibly red. This was confirmed by experimental evidence, for syphilis had been successfully produced by inoculating the blood of a patient in the secondary stage, and in the case referred to, the dates, etc., agreed closely with those observed in the author's series. Need blood be used in vaccination in order to convey syphilis? The author thought that probably it was enough if the material used had been mixed with colorless exudation from the blood, as occurred when the vaccine vesicle was allowed to drain, in order to furnish more

lymph. This was confirmed by the fact that the vaccinators in the cases in question asserted that they always scrupulously avoided making the vesicle bleed ; in none of the instances was there any history that the lymph was visibly bloody ; while it was well known that many men of large experience allowed the vaccine vesicle to weep. According to this supposition, as soon as the first contents of the vesicle was exhausted, the risk began. Third: If the syphilitic virus and the vaccine virus be implanted at one and the same time, what will be the course of events? If the patient be susceptible of vaccination, the vesicle goes through its usual phases and heals, and nothing more happens till the end of a month, when the scar indurates and the chancre forms. In some cases, however, the vaccination sore never heals, and in these the scab somewhat obscures the characters of the chancre."

"CHARACTERS OF THE VACCINATION CHANCRE.—It begins as a little red, firm, glossy tubercle, which gradually increases in size, and becomes harder. In about a fortnight it usually ulcerates, the sore giving off but very little discharge, and with a hard base and edges. If no mercury be given it may remain open several months ; in one case it probably became almost phagedenic. Sometimes there is from the first a good deal of inflammatory effusion at the base of the sore, and much purulent secretion and scab on its surface ; its specific characters may be thus quite hidden. These cases are generally in children."

"TREATMENT OF THE VACCINATION CHANCRE.—Mr. Hutchinson felt no doubt that, should a vaccination-scar take on the induration characteristic of a chancre, and should the other facts of the case corroborate the suspicion, it was the surgeon's duty without delay to commence the administration of mercury. The influence of mercury in retarding and greatly diminishing the severity of the primary and secondary symptoms was most marked in all those cases which came under care at an early period (sixth week), as in the first series. Indeed, in this series the eruption was so retarded as to induce skepticism in not a few minds as to the correctness of the diagnosis ; several

of them, however, from five to seven months after vaccination had undoubted, though mild, secondary symptoms. In the second and remaining series of cases, however, the disease was not discovered until much later, and most of them suffered very severely from secondary symptoms, the last two cases (third and fourth series) particularly so. As regarded tertiary symptoms, it was as yet too early to say anything."

"As regarded *prevention*, Mr. Hutchinson thought it of the first importance to diffuse widely amongst the profession the knowledge that vaccination-syphilis was possible. It was important next to avoid vaccinating from children whose parents were not known to the vaccinator; and, further, to decline, for the most part, using all first-born children, waiting until, by the development of one healthy child, a guarantee of freedom from taint on the part of the parents had been given. Lastly, the avoidance of the blood-stained lymph and of recent exudation from the walls of the vesicle was a sufficiently obvious precaution, and needed no further mention."

The care and honesty displayed by Mr. Hutchinson in all his investigations of this serious subject certainly deserve praise. The main circumstances of interest in these last series of cases are, as stated in *The Lancet*, "in favor of the *possibility* of the communication of syphilis by the inoculation either of the blood of a syphilitic vaccinifer, or of the serum which oozes into the vesicle, if the vaccinator be unwise enough to continue to take fluid after the first drop of lymph—the true product of the vaccination—has been exhausted." Not one particle of evidence has been adduced to show that the true lymph can be infected with syphilis, otherwise syphilis would be far more widely diffused through the world than it actually is. It is evident from a careful consideration of the subject, in all its phases, that the chances of the vaccinal communication of syphilis are very small indeed where caution is shown in the selection of the lymph, and that vaccinal syphilis can only be communicated when the following conditions are simultaneously present:—"(1.) A syphilitic vaccinifer. (2.) An active condition of the syphilitic element of the vaccinifer's blood; but at the same time (3.) an absence of such external symp-

toms of syphilis as would deter any commonly upright surgeon from using the subject of them as a vaccinifer. (4.) The gross imprudence committed, of employing either blood or the serum obtained after the emptying of the vesicle." These conditions are very rarely fulfilled. While, under ordinary circumstances, the danger of the vaccinal communication of syphilis is very small indeed, it is nevertheless a matter that calls for serious attention and the earnest co-operation of all who can assist in devising means to prevent its occurrence. The subject is one of very deep interest, whether looked upon in the light of science or purely as a matter of social economy. The position assumed by the State in compulsory vaccination necessitates on the part of the government officials the greatest care and prudence in the selection of the lymph to be used under their authority. On the part of the profession, it should be well understood that no lymph should be taken where there could be the faintest suspicion of disease in the vaccinifer.

M. H. HENRY, M.D.



## ON THE ANATOMY OF XANTHOMA PALPEBRARUM.

### EXPLANATION OF THE PLATES.

FIG. I.—*a*, Rete malpighii; *b*, connective tissue of the cutis; *c*, hair; *d*, sebaceous glands with very large enchymatous cells; *e*, dense connective tissue around the sebaceous glands; *f*, plaques of exuberant sebaceous cells.—*Hart.*, *Ocul.* 3, obj. 5.

FIG. II.—*a*, Rete malpighii; *b*, cutis; *c*, empty hair-sheath; *d*, sebaceous gland; *e*, plaque of exuberant sebaceous gland-cells in continuity with the sebaceous gland.—*Hart.*, *Ocul.* 3, obj. 5.

FIG. III.—A group of hyperplastic sebaceous cells, bounded at the margin by dense connective tissue. In the latter, two connective tissue-cells with granular contents.—*Hart.*, *Ocul.* 3, obj. 9.

FIG. IV.—Several groups of sebaceous cells, separated by bundles of connective tissue.—*Hart.*, *Ocul.* 3, obj. 9.

FIG. V.—Two groups of hyperplastic sebaceous cells—*a*, vessel in longitudinal section; *b*, vessel in transverse section—both containing blood-corpuscles. The orifice is swollen by means of hyperosmic acid. Hyperosmium preparation.—*Hart.*, *Ocul.* 3, obj. 9.







## Selections from Foreign Journals.

### ON THE ANATOMY OF XANTHOMA PALPEBRARUM.

By DR. EDUARD GEBER (VIENNA), AND DR. OSCAR SIMON (BERLIN).

TRANSLATED FROM THE ARCHIV FÜR DERMATOLOGIE UND SYPHILIS,  
BY DR. EDWARD B. BRONSON.

THE morbid change in the skin which has been described under the names vitiligoidea, xantholasina, xanthoma, has of late become the subject of numerous treatises. While various views have been expressed concerning the etiology of the affection, and especially in reference to its connection with icterus, the question of its anatomy seems to have been quite excluded. The later observers all pronounce the vitiligoidea an affection of the connective tissue, and more especially a fatty metamorphosis of the hypertrophied elements of the connective tissue; and the old view maintained by Hebra, according to which vitiligoidea was an affection of the sebaceous glands, would seem to have been completely refuted.

Since, from our investigations, we have arrived at conclusions which materially differ from those of the later observers, we thought ourselves justified in offering them for publication.

The case which furnished the opportunity for the investigation was the following:

W. Amalie, 40 years of age, the widow of an official, was admitted at Hebra's Clinic in the imperial General Hospital in November, 1871. States that she first had her courses in her 13th year, and has menstruated regularly until within three years. Says that in the year 1847 she suffered for three weeks from jaundice. Was delivered of her first child in 1853, and has since then borne eight times. The first five children were born at intervals of two years, and these children are still living. The sixth child lived but three days; the following three births were premature.

Says she first noticed yellow spots on the eyelids in the year 1864, the first being a spot the size of a bean on the right lower lid. Subsequently, the other lids became also affected, and the spots gradually increased. In the year 1865 she suffered for some time from rheumatic pains, and somewhat later several ulcerations made their appearance on the legs.

On admission the patient presents the following appearances: The patient is an ill-nourished, cachectic person, with a yellow, pallid hue of the skin; panniculus adiposus and muscular system feebly developed. On the front of the right leg there are several syphilitic ulcers with sharply cut

edges and gray unhealthy base. The skin of the eyelids is much wrinkled and crossed by injected veins, especially noticeable when the lids are stretched. The color of the lids is a dirty-bluish hue with a partly yellowish shade.

There are yellow spots on both eyes symmetrically situated and occupying the greater part of the lids. They extend from the outer and inner canthi upwards and downwards. Their outer limit runs parallel to the border of the orbital cavity at a distance of three lines, while to the inner side they do not quite reach to the edges of the lids. The border shows a sharp contour, and only on the lower lids are the spots below somewhat ill-defined. The spots are perfectly level with the surface of the skin, and neither on opening or shutting the lids is any elevation to be either felt or seen. The color of the spots is a straw-yellow, and appears quite uniform. On closer examination, however, when the skin is stretched a sort of mosaic marking is observed, little yellow sections alternating with those normally colored.

Although the greater part of the lids is occupied by the large confluent spots, there are separate from these, on either eye, two smaller spots symmetrically placed, one on the upper lid, the other at the external canthus. The color of these smaller spots is slightly lighter than that of the larger.

At the extreme point of the left upper spot, and in immediate juxtaposition, is a smaller whitish point of the size of a pin's head, having the appearance of a milium. Exactly similar milia are to be seen in the vicinity of the lids on the nose, cheeks, and temples.

The patient was at the Clinic from the 14th of November, 1871, till the 27th February, 1872. During this time no change in the spots could in any way be perceived. In the month of January she was attacked with inflammation of the lungs, from which she suffered three weeks.

On the 15th January a piece from the periphery, two lines in size, was cut out from the left upper eyelid. The place healed in several days with a perfectly flat scar.

As a second attempt resulted quite as fortunately, the whole of the spot upon the left lower lid was removed by surface cuts with the scissors, and here also a perfectly flat scar was formed without a trace of ectropion.

The examination of the excised pieces was made in the following manner:

1. Preparation of picked specimens.
2. Hardening in a wine-yellow solution of chromic acid for six days, and then for three days in concentrated alcohol. The sections were for the most part colored in carmine, and made transparent with glycerine or caryophyllian oil (the latter being examined in dammar varnish).
3. Pieces were left for 24 hours in  $\frac{1}{2}$  per cent. hyperosmic acid and then dipped in glycerine; others hardened in alcohol were used for making sections.

The result of the microscopic examination was as follows:

The stratum corneum is slightly developed. The rete Malpighii forms a layer from 0.02 to 0.024 millimetres thick,

whose upper layers of cells are light, while the lowest layer is in part more darkly colored. The boundary of the rete towards the corium is a well-marked and sharply defined line. The papillary body shows itself in slightly wavy elevations; in places the papillæ are more sharply marked.

The corium at certain points shows a thick texture of connective fibres, at other points bundles more loosely woven. Elastic fibres are abundantly mixed with the connective fibres.

The connective-tissue corpuscles are scattered through the entire tissue as in the normal cutis of the lids, and are mostly of normal size, though in spots somewhat enlarged. Most of them exhibit a pale, finely granular protoplasm; some contain roundish granules with bright light-reflex, others more yellowish or brownish yellow granular masses; a number of mostly spindle-shaped or oval cells are quite filled with these brownish yellow, granular particles. These cells occur only singly, more frequently in the uppermost layers of the cutis. They occur nowhere in collections or in any sort of relation to the structures interspersing the connective tissue, as hair-follicles, sebaceous glands, vessels or nerves. The hair-follicles, which are present in moderate numbers, contain for the most part lanugo-hairs. The cells of the outer root-sheath are usually normal, here and there somewhat enlarged, especially in the preparations treated with hyperosmic acid, in which they are often swollen out spherically.

Although the structures thus far mentioned do not differ materially from the normal, the general aspect of the cutis is nevertheless quite altered, inasmuch as almost its entire tissue is occupied with a new growth of cells.

We will next speak of the state of the sebaceous glands. These structures, which with distinctly circumscribed margins are found in the vicinity of the hair-follicles, are nearly all of them distinguished by their notable size. Not only in the preparations treated with hyperosmic acid, but in all the others as well, the epithelial cells of the glands are markedly enlarged. They are large flat cells, either round or, from a flattening at the sides, polygonal. The nucleus, which is generally central, is plainly visible in every cell and distinguished by more strongly refracting the light. The corpuscle sometimes shows fat globules situated around about the nucleus, but oftener fine granular contents. Proceeding directly from these sharply circumscribed sebaceous glands, or separated from them by bundles of connective tissue, but in distinct contiguity, a cell-growth is spread through the greater portion of the cutis. The single cells have an average size of from 0.014—0.028

mm.; there are, however, also smaller ones of about 0.008 mm. They are partly round, partly polygonal cells, with generally granular, sometimes homogeneous contents, and with a bright nucleus that is sometimes central and sometimes peripheral. The cells show similarity in their character as well as in their situation, as we have pointed out above in reference to the cells of the sebaceous glands.

These cells are so situated that several lie together, in close apposition one to another, presenting no connective-tissue fibres between the several cells. Only between a larger or smaller collection of cells may be seen the fibrillæ of connective tissue, so that a grouping of cell-masses is thus effected. Frequently a larger number of such groups produces long streaks or plaques which traverse the cutis.

They often begin at a distance of 0.03 mm. from the rete Malpighii, and frequently have a depth of 0.7 mm. On the margin of the plaques the connective tissue is of great density, and, proceeding thence, bundles of connective tissue may be seen to penetrate the plaques and divide up between the groups.

While in most places the brightly refracting nuclei appear evenly distributed, they may at other points be seen remarkably congregated together, mostly at the margin. Sometimes this is owing to the fact that the nuclei of several cells in apposition with each other are peripheral and lie near the point of contact of the cells. Sometimes it happens that they are cells of smaller size, so their nuclei are less removed from each other than in the large ones. For the most part, however, this appearance of multiple nuclei results from the fact of these brightly refracting structures shining through the pale protoplasm of superimposed cells, so that one often sees in the border of one cell the nuclei of a whole number of cells lying one above another. A more exact adjustment of the lens will in each instance render it easy to discern the cell-margins pertaining to the nuclei observed.

As to the vessels, we were able by the microscopic examination to perceive the presence of larger branches, with abundant ramifications, through the epidermis. Corresponding to this, in the microscopic examination we find the vessels of relatively considerable diameter. This is manifest even in the upper portions near the rete Malpighii; still more, however, in the region of the sebaceous glands. The vessels ramify between the several cell-groups. The orifice of the vessel in the preparations treated with osmic acid shows mostly large cells and nuclei as if they were distended. The enchymatous cells of the sweat-

glands have a similar appearance. In these latter as well as in the nerves nothing abnormal is seen.

In view of the result of this investigation, we must designate the nature of this affection as "a hyperplastic development of sebaceous gland-cells."

This result, however, differs wholly from that which has been of late advanced in different quarters as the essential nature of xanthoma. In order to point out this difference we will briefly enumerate the accounts given of the anatomy of xanthome.

Rayer and Von Ammon were the first to describe and illustrate the disease. Rayer, in whose treatise no mention is made of xanthionia, gives in the Atlas two figures of xanthome of the lids, which he designates as "plaques jaunes." The one in Plate XXII., Fig. 15, is represented under the pigment-changes, without anything being mentioned regarding its nature. The second, in Plate VIII., Fig. 16, comes under the diseases of the follicles, and is described as "plaques jaunes folliculeuses."

That this illustration does not relate to simple milium, as is held by others, is evident from Fig. 10 of Plate VIII., where, under the name "élévures perlées," he depicts a number of milia. Moreover, he himself alludes to the connection between the two illustrations in adding to Plate VIII., Fig. 16, which was taken from the cadaver: *De semblables plaques sont représentées, pl. XXII, 15 telles, qu'on les voit pendant la vie.*

Von Ammon mentions, under the name blepharodyschroea, elongated, square, yellow spots of the lids somewhat larger than a bean. They are slightly elevated above the surface, sometimes lighter, sometimes darker, and are distinguished by their occurring symmetrically. He has seen them occur congenitally as well as during the life. The seat of the disease he wrongly places in the rete Malpighii, and thinks they are seldom more deeply situated. Addison and Gull, who first describe the disease more minutely, and name it vitiligoidea plana and tuberosa, place the seat of the affection in the cutis without expressing themselves more exactly as to the anatomy. In their fifth case two enlarged sebaceous follicles occur on the diseased lid.

The first who considered the anatomy of xanthoma minutely was not Pavy, as universally stated till now, but Bärensprung. He found numerous fat-molecules and granules deposited between the connective-tissue fibres of the cutis in their uppermost layers. Pavy only examined the tuberosa form in picked preparations. He found a dense connective tissue, which yielded on pressure an oily fluid. The whole connective tissue was studded with fat granules. He observed no cells in this tissue.

Hilton Fagge offers absolutely nothing new. He merely examined Pavy's case. In regard to the *Vitiligoidea plana* both have only surmises.

Hebra has always consistently declared that the Xanthoma depends on a disease of the sebaceous follicles, and has attributed the yellow color to the abundant fat accumulated in the sebaceous cells. Neumann adheres fully to Hebra's view.

Erasmus Wilson has been less consistent than Hebra. At first he held the xanthoma to be a tumor from retention in the sebaceous glands, and characterized it as *molluscum sebaceum*. Later he changed this view and declared the xanthoma to be a hypertrophy of the epithelium of the sebaceous glands, which corresponds exactly to our position. He named the disease *laminae flavæ epithelii cutis*, and later *xanthelasma*. Recently he has abandoned these names as well as this view of the anatomy, and accepts the opinion of Murchison. Murchison, having occasion to make an autopsy in a case of xanthoma, in which he found fibroid and adenoid deposits in the liver, describes a great quantity of "oily matter" in the skin, consisting mostly of minute granules, but also in part of cells. It is regarded as having commenced about the sebaceous follicles. W. Frank Smith, who examined only tubercles from the back of the hand, found all the tissues hypertrophic and the cutis thickly beset with small irregular corpuscles without nuclei. Half of them could be made to disappear with ether, but a large number remained in the meshes of the connective tissue. He proposes the name Xanthoma for the affection.

Hutchinson says, in his monograph, that he has nothing new to contribute in reference to anatomy; yet he regards it as certain that under Xanthoma anatomically different processes are described, and that sometimes, perhaps, only the sebaceous follicles are involved.

The first who gives a thorough anatomical description is Waldeyer. He found the nature of the disease consisting in a collection of connective-tissue corpuscles in groups and in a fatty degeneration of these structures. These cell-growths are accumulated wherever normal connective-tissue corpuscles naturally occur in increased numbers, as about the hair-follicles, sebaceous glands, vessels and nerves.

The latter structures remained normal: The fat within the cells was not finely granular, but, for the most part, confluent in the form of rather large globules.

After Waldeyer, Manz gave an account of xanthoma, which, as he declares, agrees in all essential points with Waldeyer. Still there are certain points in his account which leave this



doubtful. In the meshes of the connective tissue he saw masses of a light yellow color and very coherent. They were composed of minute particles of a round shape, which lay pressed together without any intervening substance. No special grouping of these particles, which he regards as fat-molecules, was observed about the hair-follicles. Of the smaller fatty masses, in which distinct cells could be demonstrated, this could more easily be seen to be the case. Whether all these masses may not have been merely cell-groups containing fat he regards as doubtful himself. (From the description given it cannot be asserted that these masses were clumps of sebaceous glands, nor can this be denied.)

Virchow has described a case of xanthelasma-multiplex. Here the eyelids were not principally involved, but there was a number of little tubercles over the whole body. They began as flat, lenticular thickenings in the skin, and gradually grew into roundish, uneven tubercles. The cornea was also beset with these new growths. The color of the tubercles was a deep yellowish brown. They consisted in a production of connective-tissue corpuscles, with a partial fatty infiltration of the cells. While the centre of the tubercles was so filled with fat-globules as to present on section the appearance of a very narrow tubular network filled with fat, the younger outer portions consisted of proliferating connective-tissue elements, so that the aspect was here similar to that of sarcoma. In the smaller tubercles only cell-growths were to be seen—no infiltration of fat. Very little pigment, in the proper sense, was to be observed. Virchow proposes for xanthelasma the name *Fibroma lipomatodes*.

Kaposi has recently published a general treatise on xanthoma, in which he concurs in the anatomical statements of Pavy, Murchison, Waldeyer, and Virchow. He pronounces xanthoma to be an interstitial new-growth of connective tissue with deposit of coarse, granular, yellow masses of fat, or of larger fat-globules in the cells and fibre-bands.

If now we compare the results obtained by these various authors with ours, it is at once apparent that none of them entirely agree with those obtained by us. For the purpose of a more minute comparison we will select the labors of Waldeyer and Virchow, since all before these, as our notice of them shows, and as Waldeyer also justly maintains, do not take cognizance at all of the minuter histological condition.

We have for a long time taken the utmost pains to discover in our preparations the appearances found by Waldeyer and Virchow. Inasmuch as we feared that perhaps the difference

of appearance might be caused by the action of the alcohol—more especially in respect to the fatty deposits, we availed ourselves, therefore, of the hyperosmic acid, which, as is well known, blackens all tissues that contain fat. But in the effects produced by hyperosmic acid, which in distinctness left nothing to be desired, we never obtained the results of Waldeyer and Virchow. That there exists no possible confounding of our sebaceous gland-growths with Waldeyer's fatty connective-tissue corpuscles, is, it is hoped, satisfactorily made evident from our description and accompanying illustrations. No doubt can exist regarding the epithelial nature of our cells. They are, as we have shown, large, flat, even cells, always lying several together in close proximity without intervening tissue. They wholly correspond in character to the cells of the sebaceous glands, in support of which is the distinct connection of the cell-groups with the sebaceous glands.

But granting that these cell-groups are cells developed from the sebaceous glands, Waldeyer would perhaps object that this is a secondary process of minor importance, and that we should have sought the main alteration in the adjacent connective tissue.

Waldeyer observes that in his case the sebaceous glands were indeed normal; "still it is by no means to be denied that sometimes, especially in old xanthelasma spots, plugged and dilated gland-follicles and fatty gland-cells may also be found. It would indeed be remarkable if such marked changes in the vicinity of these structures should not lead to alterations in the gland-cells. That is certainly not the case, however, of the younger cells, and also in deposits which were several years old I have remarked no particular change in the hair-follicles, sebaceous glands, etc."

But we have examined older as well as quite recent places from the extreme periphery of the spots, and always with the same result. Moreover, our sebaceous gland-affection had not at all the character of a secondary change, of plugged and dilated follicles, that is, of a retention-tumor, but in its total aspect, and especially in its continuous growth into the connective tissue, it answered fully to a proliferating new-growth.

We must also dispute the other objection made, that fatty connective-tissue corpuscles occur in the connective tissue surrounding the sebaceous glands, in consideration of the features which we have observed. We have described the connective-tissue corpuscles which we found, and shown that certain of them had brightly refracting nuclei and contained brownish-yellow granular masses. But neither in the speci-

mens treated with chromic acid and alcohol, nor in those treated with hyperosmic acid, were we able to discover the large cells filled with fat, described by Waldeyer. Besides, the number of the cells with granular contents mentioned above was inconsiderable, and it is possible, moreover, that they should occur in normal skin. There was nowhere present any striking development of these cells around special structures, as hair-follicles, sebaceous glands, and vessels. Thus we come to the conclusion, that in our case of xanthoma the condition of things did not at all coincide with that found in the cases of Waldeyer and Virchow.

It is our opinion that under xanthoma quite different processes have been described and identified.

Thus there are in Hutchinson's collection of forty-three cases of xanthoma, instances of molluscum sebaceum and of serous cyst-formations upon the lids. The various cases described in the literature as xanthoma, present on the very surface the greatest disagreement. The xanthoma of the palm of the hand and sole of the foot is described as distinguished by a nutmeg color and speckled appearance. The xanthoma of the backs of the hands and feet is red-colored, "similar to gout-nodules." Xanthoma of the extensor tendons and periosteum appears in the form of colorless nodules, movable underneath the skin. Finally, the case described by Virchow presents larger and smaller tubercles on the skin and cornea of a deep yellowish brown color. The greater portion of these cases certainly should be denominated, as proposed by Virchow, fibroma lipomatodes, and be kept quite separate from xanthoma plana, which depends on a hyperplasia of the sebaceous glands, an example of which has been presented in our case.

#### ADDENDUM.

Since the above was given to the press, we have had occasion to examine microscopically a second case of xanthoma palpebrarum, which we will briefly recount:—

The case was a woman, 50 years of age, who had two triangular-shaped symmetrical xanthoma spots, of about 1.5 centimetre in the longest diameter upon the upper lids. The color of the spots was a dark yellowish brown; the spots were soft to the touch and not elevated above the surface of the skin. Patient says she has never suffered from jaundice, and can give no information as to the previous duration of the spots.

The spot upon the left lid was removed by horizontal cuts with the scissors. The place soon healed with an even scar and no trace of ectropion.

The microscopic examination of the excised piece was conducted in the manner already spoken of. The result coincided in all essential particulars with the previous case; only the aspect was modified in certain places by the presence of milia and comedones. Sections through the comedones showed them to be in the upper layers of the cutis, while the milia occurred somewhat deeper. But the growth of sebaceous gland-cells occupies the greatest part of the cutis as above described, traversing the tissue in the form of plaques and stripes. The connective-tissue corpuscles appear just as in the former case.

The cells accumulated in the milia and comedones essentially differ from those of the plaques and stripes, in that they are devoid of nuclei and have a tough uniformly corneous cell-body, while in those of the plaques and stripes granular contents surround a brightly refracting nucleus. Moreover, the sharply defined boundary of the milia and comedones is strikingly marked, while the plaques and stripes project on all sides into the connective tissue. We have also in this case, beside the proliferation of sebaceous gland-cells, a plugging and dilatation of the gland-follicles with accumulation of old cell-material. Waldeyer has already alluded to the possibility of this complication, and regards it as a secondary process of minor importance. We regard it also as a complication, since it occurs in certain places only, while the hyperplasia of the sebaceous gland-cells prevails everywhere uniformly, and is the essential feature of the disease.

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## ON REINFECTION IN CONSTITUTIONAL SYPHILIS.

BY DR. HEINRICH KÖBNER.

TRANSLATED FROM THE BERLINER KLINISCHE WOCHENSCHRIFT, NOVEMBER, 1872.

BY DR. EDWARD FRANKEL.

THE question of the susceptibility of an individual, at one time the subject of infectious disease, to renewed infection, has long been disputed by pathologists, notwithstanding the enormous amount of clinical material offered to our observation, especially during the reign of epidemic disease. In regard to the acute exanthematous fevers, and above all small-pox, physicians of the ripest experience, such as Werlhof, Van Swieten, Schwenke, Reclberger, and others, asserted its exclusive single

occurrence, and Archer,\* in 26,000 cases of small-pox under his treatment in the London Small-Pox Hospital during 26 years, did not observe a single instance of a second infection. It is unnecessary at the present day to refer to the adverse experiences of Boerhaave, de Haen, Gatti, Doering, Löber, etc., who report the occurrence of confluent variola in individuals at periods varying from several years to 18 or 12 months after inoculation from variolous pustules. The recurrence of epidemics of variola, scarlatina, and measles, during the past ten years, may have furnished many proofs against the opinion of an absolute future immunity after a first infection. Though the different observations made regarding the frequency, severity, and the length of time between the two periods of infection may vary among other causes according to the intensity of the several epidemics, experience proves the majority of these cases to have occurred a long time—several years at least—after the primary infection, and that the minority, in which the reinfection occurred after a shorter interval, were characterized by running a very mild course.

A similar conclusion regarding constitutional syphilis has not yet been reached. Ricord's proposition, first presented over 30 years ago, that syphilitic infection could occur only once in a lifetime, that, consequently, the diathesis continues even after all symptoms have disappeared,—an assertion synonymous with the incurability of syphilis, to which Ricord, never having observed an undoubted case of syphilitic reinfection, strictly adhered in his latest publications,† to which, in the latter, he added that no person could have an indurated chancre twice,—this proposition received unlimited acceptance at the hands of all French and German syphilidologists excepting Vidal de Cassis, and was held above all others by the dualists. Declared by Diday‡ as "sublime truth," which "according to the logic of the natural sciences needed no evidence." Ricord's law was reduced, particularly by v. Bärensprung,§ to the formula that "the influence of the syphilitic poison on the

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\* Archer, cited by Reiter. Contributions to the Proper Knowledge and Successful Vaccination of the Cow-Pox. Munich, 1846. Numerous examples of secondary variola after inoculation or primary infection are here also recorded.

† Ricord, *Leçons sur le chancre*. 2 edit., 1860.

‡ Exposition critique et pratique des nouvelles doctrines sur la syphilis. 1858.

§ V. Bärensprung, *Mittheilungen aus d. Abtheil u. Klinik für Syphilitische, Charité Annalen*, 1860. Bd. 9. Hft. 1. P. 180.

organism arrested all further susceptibility for this *same poison*." "Taking origin in clinical experience, this law has been confirmed by my (Bärensprung's) experiments. The inoculation of the syphilitic poison is negative in all persons who have an indurated chancre, secondary or tertiary syphilis, or (*ibid*, p. 149) have ever been infected, while they preserve the receptivity for the contagion of the soft chancre." Further on (p. 183), v. B. admitted that by analogy, furnished by the possible reinfection of variola and measles, *a priori*, it was not improbable that Ricord's law might also have its exceptions, and he recognized such a one in a case of subsequent syphilitic infection after 20 years, which was observed by Ricord with Cullerier and Puche, and described by Delestre (*Presse medic.*, 1860); he added, however,—with omission of the cases described by Follin,\* Boulogne,† Zeissl,‡—that he had never seen a case himself, and based his opposition§ to Virchow's theory of the course of syphilis on this law (p. 183 and ff). During and shortly after the appearance of this work (1860–61), I|| observed three cases of syphilitic reinfection in the Paris Hôpital des Vénériennes, one of which had been treated by Ricord himself for constitutional syphilis four years previously. In two of those patients their newly-acquired cartilaginous, ulcerated indurations were followed only by multiple, indolent, glandular indurations and swelling in the inguinal region (*Polyadenitis chronica*); in the third, further secondary lesions manifested themselves..

In 1862,¶ Huggenberger, of Petersburg, published two, and Diday,\*\* at the same time, not less than twenty cases of his own observation, and seven observed by others, to which we will again refer. During the following years, Diday†† has added seven, Lindwurm‡‡ one, Bergh,§§ in Copenhagen, two ;

\* Follin's observation in Vidal's *Traité des mal. vénér.* 2 edit., p. 406.

† Boulogne, *Gaz. medic.* 1859.

‡ Zeissl's case in his book on *Const. Syphilis*, p. 48.

§ Beder also joins with Bärensprung in similar arguments. (*Arch. f. Derm. und Syphilis.* 1870, p. 40, ff.)

| Köbner, *Klin. u. experim. Mittheil aus der Dermatologie und Syphilis.* Erlangen, 1864, p. 72.

¶ Huggenberger, *Zur Frage von der Einmaligkeit der const. Syphilis.* Petersburg med. Ztschr., 1862. Bd. 3, p. 161.

\*\* Diday, *de la réinfection de la Syphilis.* Paris, 1863, p. 273.

†† Idem. *Hist. naturelle de la Syphilis.* Paris, 1863, p. 273.

‡‡ Lindwurm in *Würzburg med. Ztschr.* Bd. 3. Hft. 3, p. 153.

§§ Bergh in *Hospitals Tidende*, 1865, March.

Engelstedt \* one, and Björken † (Upsala) one undoubted, with two doubtful cases.

Simultaneously with this extension of clinical experience, the theoretical and practical worth of which we will review in concluding, we have experimentally demonstrated the possibility of reinoculation not only of those previously infected, but have also stated the conditions under which alone this auto-inoculation succeeds,—as even Sigmund ‡ notwithstanding his strict dualistic standpoint, admits,—occurs independently on those affected with indurated ulcers or broad condylomata. I can to-day only repeat, what I § summarized as the result of a long series of auto-inoculation experiments. “Wallace has first said, the secondary contagion is inoculable in the well, but not in syphilitics; the latter are only susceptible to primary contagion.” We say: Thousands of clinical observations and experiments have elevated that statement to a great practical rule, but we now have experimental and clinical evidence, that a syphilitic organism is not entirely exempt from the *local* action of a secondary contagion, neither before the manifestation of general infection, nor in the stadium condylomatosum, nor during the continuance of deeper (tertiary) lesions, nor even after the cessation of all syphilitic symptoms. Of course the reaction of such an organism, “as long as the diathesis is not destroyed,” differs from that of a healthy one; the inoculation of a secondary contagion || is followed by the formation

\* Engelstedt, Bericht über das Commune Hospital in Kopenhagen pro. 1868, p. 115, ff.

† Björken in Upsala Läkarefornings Förhandlingar, iv. 7, p. 597-624.

‡ Sigmund, Syphilis and Venereal Ulcerations. Handb. der allg. und spec. Chirurgie v. Billroth and Pitha, 1870. Bd. 1. Hft. 1. Lfg. 3, p. 217.

“Auto-inoculation is an undeniable fact; it is less often observed with scleroma, than with papules on the prepuce and glans, on the scrotum or the under surface of the penis, etc. The occurrence of this form, however, is explained by reason of the general infection, without the statement of adequate proofs. Artificial inoculation also succeeds, though requiring the same conditions just stated. As these are usually absent, the majority results in failure.” Compare (page 90 of our clinical and experimental contributions) on auto-inoculation on congruent places.

§ Köbner, *ibid.*, p. 84.

|| Those who, with Zeissl (Lehrb. 2 Aufl. p. 176) acknowledge the correctness of our and *Biedenhopf's* experiments, the repetition of which he has witnessed in the Vienna general hospital by Pick, and in the military hospital by Reder, but think it weakened by several experiments of Pick (the production of similar further inoculable ulcers on syphilitics by the inoculation of ordinary pus), and ascribe the inoculability with syphilitic secretion on syphilitics to their syphilitic constitution, we would remind, 1, to the similar effect of auto-inoculation shortly after the appearance of a primitive (Hunterian) indurated ulceration a few weeks before the irruption of the general symptoms, for which stage neither an increased vulnerability, nor similar effects from ordinary pus have been asserted, much less proved; 2, on the effect developed by

of pustules and ulcers, which, in the case of a weaker virus, assume the appearance of true, soft, suppurating, inoculable chancres; but the chronic inflammation at the point of inoculation, which, in the unaffected, commences as a papule or induration with an incubation period of several weeks, is not present, except in those rare cases in which the first infection occurred many months before, and can then give rise to a second infection with induration or with subsequent general symptoms. The essential effect evidently depends on the condition of the secondary contagion at that time: its action is more intense when taken at an early period of the diathesis, milder when taken at a later period, and finally, as we believe until convinced by further objective evidence, its action forever ceases.

The following is a condensed review of my own observations of syphilitic reinfections:

I. 1860 (Hôpital du Midi, Division Cullerier), December 13th.

Indurated chancre of prepuce. Term of infection uncertain. Treated here three years ago for indurated chancre, the cicatrix of which is still evident; likewise glandular induration and roseola. December 20th. In the right inguinal region an indolent bubo; no other symptoms. Patient has received the iodide of mercury for five days. No other phenomena until the end of January, 1861.

II. 1861 (Hôp. du Midi, Division Cusco), 4 yrs. before indurated chancre, with following roseola, plaques muqueuses, tonsill. et anus, treated in Ricord's division.

To-day large indurated chancre on præputial margin; chain of indolent inguinal glands. After a few weeks roseola univers.

III. 1861, February. (In the same division.)

Disappearance, 18 months previous, of constitutional syphilis observed and treated in Hôtel du Midi, which has left cicatrices of suppurated cervical glands and colorations. To-day, February 8th, the patient, 21 years old, exhibits an unequivocal indurated chancre of the corona glandis of 3 weeks' duration; polyadenitis not yet fully developed, although a few isolated inguinal glands on the right side are hard and as large as beans. No further observations made.

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Biedenhay by the accidental inoculation of two healthy individuals from chancreous pus derived by auto-inoculation on syphilitics; in the one individual a soft, phlegmonous chancre was the consequence, which, after observation for 10 months, was not proclaimed by constitutional sequelæ; in the other, a few of the numerous pustular ulcerations became indurated, and syphilis was developed.



IV. 1861, June 8th (Hôp. St. Louis, Gibert), 18 months previous, hard ulcer, treated by Dr. Clerc, in Paris, with subsequent condylomata, iritis sinistr., and finally tubercular syphilide on shoulders; no osseous trouble.

Now, since three weeks, infecting intercourse not being ascertainable, an indurated ulceration of glans penis with slight secretion; inguinal glands somewhat swollen, hard and painless.

Patient also suffers from syphilitic sarcocoele, with infiltration of spermatic cord.

(Gibert pronounced the case to be a fresh indurated chancre; Clerc, with whom I saw the case a few days after, as an erosion which had become indurated under the influence of secondary syphilis! (?) The opinion concerning the first three cases, however, was unanimous.)

V. June 8th, 1865. (My Policlinique.)

Man, 26 years, robust. First sore  $4\frac{1}{2}$  years ago (October, 1860); treated for 28 days, in military hospital, with mercury pills; inunction (14 drachms) and diaphoresis, the subsequent pharyngeal ulcers in the same way and with iodine.

No manifestation since December, 1860, until six months ago, when he observed an eruption on the left shoulder, which still continues.

To-day this appears in small, slightly elevated, yellowish, red and desquamating patches about 1''' in size, scattered over the left shoulder (psoriasis syphilitica); nothing else on rest of body.

Five weeks ago, last connection; three weeks ago, appearance of an erosion which has spread over the whole corona-glandis to the inner surface of the prepuce, with slight suppuration, sharply cut edges, and presenting on the prepuce an induration like a card (chancre parcheminé). Inoculation of the secretion on the hypogastric region resulted in three abortive pustules, and one which developed on the 3d, 5th and 8th day to a sore, *similar in all respects to a soft chancre*. Healed by canterization. No other symptoms during the following three weeks.

VI. October 31, 1866.

(This and the following occurred in my practice.) Strong patient, age 22 years. Admitted March 8th, 1863, with soft ulcers (early suppurating bubo), which was incised in April, developed ecthyma syphilitica on April 12th, 1863, and up to May 13th, has received 14 grs. hydr. protiodid., and several mercury baths. Since then no more symptoms.

To-day: indurated ulcer of prepuce, polyadenitis inguin. on left side. Treated from October 31st to November 14th only with cerate; then followed by application of ung. hydr. nitr.

on the hard, indolent glands of left side. Inunction treatment continued from February 19th to March 7th, 1867, for mucous patches of the lips, followed by iodide of iron, until March 26th. The infecting intercourse had taken place between the 14th and 20th of September, 1866.

VII. September 18, 1867.

Patient 29 yrs., quite strong. First indurated chancre three years ago, treated by Prof. Volkmann in Halle, then roseola and pharyngeal affection treated by Prof. v. Langenbeck (with mercury and decoction).

To-day: Cartilaginous ulcer of penis first noticed six weeks ago; exposition seven weeks ago. First treated with emollient ointment, then with iodide of mercury; the induration had for the most part disappeared on Oct. 19, without further symptoms of re-infection.

The most interesting case, however, of re-infection came under my observation but recently.

VIII. October 18, 1871.

Man, 45 yrs. of age, moderately developed osseous and muscular system, pale complexion. Treated by a colleague in May, 1866, for sore, roseola and angina, with only a few grains of corrosive sublimate, without other treatment. Consulted me Nov. 24, 1868, for syphilitic sarcocele on the right side, exostosis on the manubrium sterni and bursal inflammation at the left external malleolus, and was treated with iod. pot., together with ung. hydr. nitr. (ad scrotum); he was able to resume work at the end of 1868. He continued the use of iod. pot., without my knowledge, till the end of 1870, for periodical pains in the extremities and sternum.

I had treated his wife from April 17 till June 15, 1867, for an ulcerated tubercular syphilide of the extremities.

On October 18, 1871, I was consulted by the same patient on account of a very hard but flat ulceration on the glans penis, about the size of a copper penny, and with well-defined margins; he stated that he first noticed it yesterday, since when it has ulcerated. No adenitis. Last exposure (*puella publica*) 10 weeks ago, *cum uxor* 9 and 19 days ago. On examination the wife was found healthy, and has remained so till now, after one year. An examination of the entire body of the patient revealed the old, *former periostitis on the sternum, and an enlargement and increased partial induration of the right scrotum.*

The induration disappeared somewhat after the application of ung. calomelanos; entirely on November 10, after iod. pot.; the latter treatment occasioned no change in the old lesions.

On December 10, taking severe cold, he had a chill, almost

complete suppression of urine, and urticaria; complete anuria for 2 days, with violent fever; after energetic derivation by the bowels, and cupping on the tender lumbar region, he passed some albuminous urine, which gradually increased in quantity and became normal towards the end of December. Neither during this acute nephritis, nor during the attack of spinal irritation (with which he was affected during January, 1872, and treated in a similar manner without further sequelæ), nor till now (end of September) did the patient, now entirely recovered, manifest any further symptoms of his last infection; the old node on the sternum, as also the indolent swelling and induration of the scrotum, remained stationary.

Those who with Sigmund\* diagnosticate cases similar to the preceding as "gummy deposit in the glans, but not primary scleroma," affirming as a reason the continuance of old gummy deposits or similar lesions in other organs, or, as in our 5th observation, the appearance, very late after the 1st and 6th months before the new infection, of an apparently insignificant squamous syphilide, we would refer (while admitting the occurrence of gummy deposits in the glans) first to an observation by JOH. MERKEL†: Case of inveterate bone-syphilis combined with fresh indurated chancre and fresh papular syphilide. Further, a fresh, maculo-papulous, general syphilide with condylomatous ulcers and general "scleradenitis" in a woman 18 years of age, who was infected shortly after marriage by her husband, who had similar lesions; but this woman, as I found in agreement with *Bazin and Auzias Jurenne*, also presented an extensive perforation of the soft and hard palate with cicatricial margins as the result of hereditary syphilis. But if, as according to v. Bärensprung, l. c., p. 181, and Sigmund, "the occurrence of all lesions of syphilis are to be considered, even after a lapse of several years, not as a sequel of a new, but always of the old infection, and the later irruptions are simply the continuance of the preceding; if, in the same individual, the purely secondary lesions never re-appear, provided tertiary lesions have already become developed; if broad condylomata or syph. roseola never occur either in connection with or as a relapse of tertiary affections," how can we too look upon cases, such as the last-mentioned, other than as cases of syphilitic re-infection?

The large majority of the published cases of re-infection, in which the re-infection occurred after the total disappearance of all symptoms of the first infection, present the following evi-

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\* Sigmund in Pitha and Billroth's Handbuch, p. 216, 217.

† Merkel's observation in Bair. Intellig. Bl. 1869, 22.

dence for its existence: In all the characters of the development and appearance of a *fresh induration*, in the incubation period of several weeks; finally, in the fact of confrontation, either with the new source of infection, again by the examination of another patient, who was well before, and infected from the same source; finally, by the infection of a healthy individual from a re-infected subject. In those cases, in which this detail could be investigated, Diday's 5th and 6th case, in one case each of Huggenberger & Bergh, it was found that the primary lesion in both the infecting and infected subject by re-infection consisted either in indurated chancres or condylomata later; in Huggenberger's cases the infection from condylomatous secretion in a public woman on a physician, who 6 years before had been affected with constitutional syphilis, developed in the same manner as on a healthy friend infected from the same source. As exceptional commencing lesions of the re-infection we find recorded (in Zeissl's & Huggenberger's 2d case, by the same physicians who 8 years and 8 months previously had treated the patients for nodes and gummata) a soft chancre, which, gradually, to the astonishment of both observers, "assumed the well-known fibroid Hunterian induration" (Zeissl), and was followed in the latter's case by an indolent bubo; in H.'s case by roseola and pharyngeal ulcers.

The indolent swelling of the neighboring lymphatics, the absence of which, Diday has proclaimed as essential and characteristic of a second indurated chancre, has been found in one and in twenty-six other cases; it was absent in nineteen cases.

Further constitutional lesions were found in all cases, such as maculous and papulous syphilides and superficial ulcers or condylomata of the mucous membranes; only in one of Diday's cases the velum palati was perforated, and the hard palate and nasal bones underwent necrosis.

The relative frequency of cases of reinfections with the single lesion of an indurated bubo, to those characterized by general eruptions, is summarized in the following table:

With the exception of Diday's case, with severe lesions, all the other cases recovered within eight weeks, under general treatment, without the occurrence of relapses.

In regard to the length of the intervals between the beginning of the two infections, as also between the last sequelæ and the second infection we find great variation. Thus, the interval between the first and second infection is found to be from twenty-one years to fourteen months, most frequently from six to two and a half years; between the second infection and the final symptoms of the first attack, from twenty years down to eight months.

## RESULTS OF REINFECTIONS.

| Author.           | No. of cases.* | Indur. chancre with indolent polyaden. | Symptoms of skin and mucous membrane. |
|-------------------|----------------|--|---------------------------------------|
| BOULOGNE, 1859... | 2              | —                                      | 2                                     |
| DELESTRE.....     | 1              | —                                      | 1                                     |
| DIDAY, 1862.....  | 19*            | 10                                     | 9                                     |
| Do., 1863.....    | 7              | 5                                      | 2                                     |
| ZEISSL.....       | 1†             | 1                                      | —                                     |
| HUGGENBERGER..    | 2              | —                                      | 2                                     |
| LINDWURM.....     | 1              | —                                      | 1                                     |
| BERGH.....        | 2              | —                                      | 2                                     |
| ENGELSTED.....    | 1              | —                                      | 1                                     |
| BjÖRKEN.....      | 1              | —                                      | 1                                     |
| KÖBNER.....       | 8              | 6                                      | 2                                     |

The deductions which may be drawn are of the greatest interest for the pathology and therapeutics of syphilis in general.

1. Constitutional syphilis is completely curable, all specialists agreeing in the opinion, that an organism which was once affected with syphilis, can never suffer in the same degree from a second attack.

2. We differ from Diday, who deducts the period of time necessary for the *total destruction of the syphilitic poison* from the average intervals between the first and second infection (in Diday's first category 22 months). The determination of an average period from circumstances which owe their occurrence merely to accident, can have neither diagnostic nor prognostic weight. Nor can we recommend *diagnostic syphilitic inoculation* on an individual who has suffered from no symptoms for a long time as a means for the determination of a cure; even with a negative result, we are not justified in declaring with Diday the continuance of the poison; if, however, successful, our cer-

\* Diday has classified 27 cases into 16 chancres which remained local, 9 cases followed by constitutional infection, characterized by milder symptoms than those accompanying the 1st infection, and 2 cases characterized by stronger symptoms than those with the 1st infection. As one of these latter cases, *papular syphilide* and *condylom. lata* after the 2d infection cannot be considered "stronger" than the 1st, we combine the 2d and 3d category of Diday; we also designate as very doubtful cases, the 3d, 9th, 12th, 13th, 14th observations in his 1st category, the 17th and 23d in his 2d category, also the 30th, and therefore have 19 remaining, of which ten were indurated chancres alone and 9 followed by constitutional syphilis. We also exclude from our statistics those cases in which the 1st infection consisted solely in an indurated chancre (Diday's 4th category).

† Zeissl has observed "several similar cases" such as the one referred to (Lehrbuch, 1864, p. 49), which are not available on account of deficiency in clinical details.

tain evidence of its extinction would also give us an indurated chancre, the chances of which to remain local, or to be followed by secondary though mild syphilis, have the relation according to our statistics as of 1 : 1 (22 : 23).

3. Many *inveterate so-called tertiary affections*, such as sarcocele, exostoses, may be looked upon *simply as local lesions or remains of a syphilis which has already run its course*, and not as evidence of the continuance of the poison in the system, their importance having no reference to the general constitution, but *only to the dignity of the affected organ*. We can thus explain the production of healthy children by parents who are affected with these lesions.

4. In more than two-thirds of all observations the treatment instituted for the cure of the first syphilis, *i.e.*, in order to *regain* the condition necessary for a relapse from the second infection, was with mercury, internal preparations oftener than by inunction. In regard to syphilitic reinfection after subcutaneous injection of mercury we have no experience. This proves that mercury is the principal—we do not say the only—therapeutic agent against syphilis, and not the agent against its final extinction, as held by the anti-mercurialists.

## ON THE RELATIONS OF THE CUTANEOUS AFFECTIONS AMONGST THEMSELVES, AND WITH THE AFFECTIONS OF OTHER SYSTEMS.

By M. BAZIN\* (PARIS).

CONDENSED FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILOGRAPHIE, 1872,  
BY DR. EUGENE PEUGNET.

M. BAZIN asserts that pathology like physiology has its laws, and that it is impossible to rigorously distinguish the normal from the morbid condition. Basing himself: 1. On eczema of the scalp, coincident with cervical adenopathy, said to be due to an extension of the inflammatory action, which is not the case, for, if the eczema is of an arthritic or herpetic nature, there is no glandular enlargement. The tendency of scrofulous subjects to enlargement of the cervical glands should not lead to taking the sequelæ for the cause—this hypertrophy being the first

\* Opening lecture at the Hôpital Saint-Louis, reported by M. Deboise, Interne.

degree of the disease. 2. Taking two cases of lichen—one has large and painless papules; the other has much smaller papules, but accompanied with itching, at times unbearable. Pathological anatomy does not afford any explanation to this, for in the first case the papules are larger, and the anatomical lesion greater. The difference is due to the nature of the affection: the first is strumous lichen, the second herpetic lichen. 3. Comparing two cases of angina, one of which is strumous, the other arthritic, analogous differences will be found, which cannot be explained by pathological anatomy. 4. Zona unaccompanied with pain, affecting a syphilitic patient, is equally common in patients free from syphilitic taint. 5. Metastasis of parotitis to the testicle is frequent, and it cannot be explained by the anatomical and physiological relations of the parotid and testicle; but these two affections depend on one disease. 6. Experimentation may cause external lesions or pathogenic affections. They may be analogous, but are never identical, with the affections due to an internal cause.

M. Bazin adopts the andropathic doctrine; admitting that it is man, not an organ which suffers. Making a careful distinction of what has always been confounded: the disease, the affection, the lesion, and the symptom. The relations of cutaneous affections and of other systems are four in number:

- A. Relation of diseases;
- B. “ of special affections;
- C. “ of generic affections;
- D. “ of the symptoms of the lesions.

#### A. RELATION OF DISEASES.

Diseases are fixed and invariable. It was an error to endeavor to divide arthritis into gout and rheumatism. Hemorrhoids have been described as a third form of arthritis—the hemorrhoidal disease: it is only a complication occurring in arthritis and its status is not chronologically determined. The relations of diseases are divisible into three classes:

- I. Relations of repulsion (antagonism);
- II. “ of attraction;
- III. “ of coexistence.

I. RELATIONS OF COEXISTENCE.—No one will deny the antagonism of certain acute diseases: vaccinia either prevents or modifies variola: variola interrupts the evolution of measles; rheumatism arrests the gonorrhœal discharge. This an-

tagonism is not as manifest in chronic diseases. Scrofula and syphilis are daily seen progressing side by side in the same subject, without having the slightest influence over one another. One of his predecessors in the Hôpital Saint-Louis admitted the antagonism of syphilis and scrofula, and adopting that theory, inoculated his patients with syphilis. M. Bazin affirms that the result was unfavorable, and that the patients, weakened by the second disease, did not have the same power of resistance against the first. M. Pidoux attributes the improvement caused in consumptives by the Eaux-Bonnes to the fact that sulphurous waters give rise to cutaneous manifestations of arthritis, of scrofula, and of herpetism; there is therefore an antagonism between these diseases and phthisis. Tuberculosis is the fourth period of constitutional diseases, these diseases cannot retrograde; the sulphurous waters cause a simple revulsion, by giving rise to pathogenic eruptions.

II. RELATIONS OF ATTRACTION.—Diseases due to an external cause may induce diseases due to an internal cause. A patient affected with parasitic sycosis recovers; a short time afterwards he becomes affected with pustular sycosis: there are no broken hair, it is an arthritic sycosis; the parasitic affection has induced a parasitic one. Favus induces a scrofulous enlargement of the cervical glands. After recovery from tinea tonsurans, and that the hair are healthy, crusts and epidermic exfoliations form on the scalp, it is a benign scrofulide, induced by the trycophyton. Internal diseases may also give rise to other forms of internal affections. Scrofula induces arthritis—syphilis induces herpetism. No one is better aware of the truth of this than M. Ricord. He has frequently seen patients, who, subsequent to syphilitic eruptions, were affected with herpetic eruptions; he has frequently sent patients affected in this manner to M. Bazin.

III. RELATIONS OF COEXISTENCE.—At its inception, a phlegmasic complication may improve the condition of a patient affected with a chronic disease. It is thus that erysipelas may modify lupus. In the ultimate period of diseases, all the complications become serious, such as: pleurisy, arthritis, phlebitis, etc. If two are associated together, their evolution will be less rapid.

#### B. RELATIONS OF SPECIAL AFFECTIONS

Are very multiple; although appearing to be very complicated, are in reality very simple; the morbid varieties are never blended together. They are:



- I. Relations of vicinity or of coincidence ;
- II.    "       of form ;
- III.   "       of nature ;
- IV.    "       of site (or topographical) ;
- V.     "       of evolution (or chronological).

**I. RELATIONS OF COINCIDENCE OR VICINITY.**—Scabies, gonorrhœa, syphilis, and tænia are frequently coincident, the contagion of these diseases having been simultaneous. Affections due to an internal cause may coexist with those due to an external one. A patient affected with arthritic acne may readily have psoriasis eczema. Finally there may be a coincidence of special affections due to an internal cause.

**II. RELATIONS OF CAUSATION.**—Two diseases may depend on the same cause ; such are icterus and prurigo : the latter is much more obstinate, when the former is of older date. Acne pilaris, caused by a sanguineous effusion in the hair bulb, may coexist with purpura. Erythema of the upper lip frequently accompanies coryza. Inflammation of the glans or of the vulva in gonorrhœa is due to a similar cause—the discharge. Occasionally one disease acts on another, not as the active cause, but as a predisposing one ; for instance, preputial herpes frequently manifests itself on the cicatrices of old chancres. The predisposing cause is then the chancre ; the active one, arthritis ; the determining one, coitus with a woman affected with gonorrhœa, or from an excessive use of stimulants. A patient affected with psoriasis has an attack of variola, the pustules will be confluent on the surface of the psoriatic patches, the latter evidently acting as a predisposing cause.

**III. RELATIONS OF FORM.**—Affections of a different nature may present themselves under a common form. Cooks frequently have an eruption known as the cook's itch ; it may be mistaken for scabies ; eczema, a form common to both, is the cause of the error. Parasitic and arthritic sycosis have the same form, but their nature is evidently different ; this is also the case with parasitic herpes circinnatus and arthritic herpes circinnatus—the identity of form in the pathogenic eruption more readily leads into error. Iodic or bromic acne, urticaria caused by the ingesta of shell-fish, copaivic roseola, are frequently mistaken for pseudo-exanthematic urticaria and roseola. Syphilis, scrofula, impetigo, acne, hydroadenitis, etc., have common forms. This commonalty of forms is the origin of many errors in diagnosis. It is also the case with arthritis and herpetism.

**IV. RELATIONS OF NATURE.**—Affections of a common nature

may simultaneously appear under different forms. It is thus that: mucous patches and an ordinary syphilide coexist in a syphilitic patient; lingual psoriasis, orbicular eczema of the umbilicus, of the anus, and palmar eczema in an arthritic subject; eczema, adenitis, and fissures in a scrofulous one. In all these cases, the patients present affections differing in form, but which should be connected with one disease.

V. RELATIONS OF SITE, OR TOPOGRAPHICAL.—The site of the affection is of great importance. It assists in the diagnosis; traumatic and arthritic affections are situated on the exposed parts; herpetic psoriasis affects the knees and elbows; parasitic herpes circinnatus the face. The site is only an element in the diagnosis, it should never be made use of as the basis.

VI. RELATIONS WITH THE EVOLUTIONS OF THE DISEASE, THAT IS, CHRONOLOGICAL.—Diseases progress regularly, they succeed to each other in a determined order. M. Bazin believes that he has established it beyond a doubt in the four constitutional diseases. M. Ricord divided the syphilides into early and tardy. M. Bazin determined the patches, the benign and malignant syphilides, and divided the syphilides into three groups:

1. Exanthematic syphilides;
2. Circumscribed, resolute syphilides;
3. Circumscribed ulcerative syphilides.

He has also similarly divided the scrofulides into benign, malignant, and ulcerative; herpes into benign and those more grave. The study of those evolutions demonstrates the similarity of constitutional diseases.

#### C. RELATIONS OF THE GENERIC DISEASES

Can be studied under three heads:

- I. Relations of the varieties with the regions;
- II. " " " with the classification;
- III. " " " with the disease and its evolution.

I. RELATIONS OF THE VARIETIES WITH THE REGIONS.—Anatomy demonstrates that certain varieties cannot exist in certain regions. The seat of sycosis is the hair-bulb, therefore this affection is never seen on smooth surfaces, such as the palmar and plantar surfaces. The sebaceous follicles are the seat of acne; these follicles accompany the hair, and are wanting where the latter do not exist; therefore the seat of acne can only be on the hairy parts. An affection may seat itself everywhere as a form, but not as a kind. Arthritic pityriasis develops in the

hairy regions and uncovered portions ; chronic herpetic pityriasis manifests itself on all the regions of the economy, and if it appears primarily on the hairy portions, it subsequently extends to the neighboring portions ; finally, arthritic psoriasis never exists on the palmar and plantar surfaces.

II. RELATIONS OF THE VARIETIES WITH THE CLASSIFICATION.—A class is designated by its elementary lesion, vesicle, bulla, pustule, etc. As an order contains very different forms, the knowledge of the order is insufficient as a means of diagnosis ; thus miliaria, herpes, eczema and varicella belong to the vesicular order, the form, seat, grouping, and evolution of which are very distinct. M. Hardy confounds herpes and eczema. M. Devergie, in his description of sycosis capillitii, confounds the pustule of sycosis with that of acne ; his sycosis capillitii is nothing else but acne pilaris.

III. RELATIONS OF THE VARIETIES WITH THE DISEASE AND ITS EVOLUTION.—The disease manifests either by simple or compound forms ; the former are characterized by one elementary lesion, the latter by several elementary lesions. According to Willan's teachings, and the disciples of Bielt, the compound forms are rare ; they only recognize eczema impetiginodes. On the contrary, M. Devergie admits compound affections coexistent with each simple affection ; but these forms only exist in M. Devergie's book. He has erred in confounding the principal lesion with the accessory one. Thus, in lichen lividus there is a papule and a stain ; the latter is accessory. There are erythema and pustules in acne rosacea ; the pustule is evidently the essential lesion. This affection demonstrates that the same form may be common to several diseases. Thus : the alcoholic, the arthritic, and the scrofulous acne rosacea. The scrofulous is not as red as the arthritic, the capillaries of the circumference are not dilated, the pustules are more rare, but more voluminous and more suppurative. Frequently the antecedents of the patient are the only means of deciding between arthritic and alcoholic acne rosacea. A close study of the affection permits the diagnosis of the disease.

A disease may always present the same form during its course. Thus : an herpetic subject may never have any other cutaneous lesion than psoriasis ; but the reverse also occurs : there is then a certain order in the forms ; eczema and impetigo will usually precede scrofulous lupus.

The forms may change *in situ*, under the influence of the same disease ; a scrofulous eczema may be transformed into scrofulous impetigo. But the transformations *in situ* of generic

affections, under the influence of another disease, are a frequent cause of error. For instance, a patient has syphilitic patches on the palm of the hands, they disappear, and arthritic palmar psoriasis manifests itself instead.

Finally, various forms may blend themselves in a uniform special affection. Psoriasis and eczema, during the progress of the disease, may involve the entire surface of the body; then the diagnosis of the primary affection can only be made by the commemorative symptoms. These different forms have blended themselves into a uniform affection—exfoliative herpes.

#### D. RELATIONS OF THE ORGANIC SYMPTOMS.

The organic symptom is the lesion existing at the time the affection is under observation; it must not be confounded with the elementary lesion, which is the organic symptom of the characteristic stage; thus, in eczema, the redness, squamæ, and crusts are organic symptoms—the vesicle only is the elementary lesion. The study of the relations is divisible into three heads:

- I. Relations with the anatomical elements;
- II. Relations between the organic symptoms;
- III. Relations with the affection.

I. RELATIONS OF THE ORGANIC SYMPTOMS WITH THE ANATOMICAL ELEMENTS.—Following the phases by which the eruptive elements usually manifest themselves, the organic elements are divisible into five classes. Thus, in ecthyma, there is first a spot, then a pimple, then a crust, finally an ulcer and a cicatrix. The classes are as follows:

- a. The spots;
- b. The pimples;
- c. The exfoliations or foreign bodies;
- d. The ulcers;
- e. The cicatrices.

This division has been severely criticized. It has been objected that the word pimple is trivial. It is borrowed from *Sauvages*, and has been preserved, as every one is acquainted with it, and is unequivocal.

a. THE SPOTS.—Spots are a modification of the color of the skin, with or without a slight integumentary prominence. They form a very extensive order, including the exanthemata and maculæ of *Willan*. They are either simple or compound. Blood or pigment causes the simple spots; the compound ones

are due to a deeper alteration, such as the black spots of melanosis, the white of keloid, the yellowish of steatosis, the greenish due to cholesterin. Compound spots are not to be dealt with here.

Sanguineous spots are congestive or purpuric. The congestive ones are due to an accumulation of blood in the dilated and varicose-like capillaries. Pressure, by expelling the blood from the capillaries, causes them to disappear; such are the lenticular spots of typhoid fever, and the spots of erythema nodosum.

Purpuric spots are due to an extravasation of blood in the derma. Pressure does not cause them to disappear. Their color varies with the date of their appearance—first red, they become black, then blue, then yellow, and finally disappear. Traumatic ecchymosis and the spots of purpura are examples of them.

Pigmentary spots are due to the accumulation of pigment at one point. The Malpighian layer contains a certain quantity of pigment; if there is an excess of it at one point, a pigmentary spot manifests itself. The cause of these is unknown. After the researches of Addison, it was supposed that the disease of the supra-renal capsules caused them.

Blood and pigment may combine themselves, and give rise to spots with special tints, such as the syphilitic spots with their coppery aspect.

Other spots may be due to an absence of blood and of pigment. Thus the central portion of the patch of urticaria is discolored, owing to the anæmia of that portion of the derma. In true alopecia there is a discoloration of the integument, which assumes a milky tint, due to the absence of pigment.

b. THE PIMPLES are the circumscribed projections on the surface of the skin. They correspond to the vesicular, bullar, pustular, papular, and tubercular orders of Willan. Pimples are liquid and solid—the first are vesicular, bullar, or pustular; the second are papular or tubercular.

Vesicles are small hemispheric and transparent projections, varying in size from a millet-seed to a lentil, which soon ruptures and permits the escape of its contents. The seat of the vesicular, by analogy with the sudamina, has been placed in the sudoriparous glands—that is only a hypothesis; the fluid in the former is alkaline, whilst the contents of the sudamina is acid.

The bullæ only differ from the preceding elements by their much larger size, varying in size from a lentil to a nut.

Pustules are purulent pimples; they are vesicular and ecchymatous; the former are entirely purulent, the latter have an

indurated base with a purulent apex. The hairy and sebaceous follicles are the anatomical seat of the vesicular pustules; the hairy follicles are the seat of sycosis, the sebaceous follicles of acne. It is probable that the seat of impetigo is also in the latter, as its seat of election is where they are abundant.

There is but one form of the ecthymatous pustules—ecthyma; it generally affects the superficial portion of the derma.

Furuncles, which appear to be seated in the deeper layers of the derma, and hydro-adenitis, well known since the researches of M. Verneuil, which is seated in the sudoriparous glands, are described with the liquid pimples.

Papules are projections of the skin, scarcely larger than the head of a pin, and appear to be due to papillary hypertrophy. M. Hardy has observed that lichen never presents itself in the palm of the hand and on the surface of the fingers, that is, on the portions of the body where there are the greatest number of papillæ. But there are two kinds of papillæ—the nervous papillæ and the papillæ essentially charged with the epidermic secretion; and the seat of the papule appears to be in the latter.

The seat of the tubercula appears to be in the deeper structure of the derma, which becomes infiltrated with the elements of a new formation.

c. EXFOLIATION, OR FOREIGN BODIES.—Exfoliation is an organic symptom, characterized by the presence of the products of secretion, such as epidermic scales, concreted liquids, dried pus forming crusts, shreds of gangrenous tissue, and live or dead parasites, on the surface of the integument.

The seat of the parasite is on the epidermis—the parasite does not penetrate deeply; such is the parasite of pityriasis versicolor.

The sebaceous exfoliation is the elimination of the matter poured out on the surface of the skin by the sebaceous follicles.

The simple epidermic exfoliation comprises psoriasis and pityriasis; there is a change in the epidermic secretion in those affections—therefore the seat must be in the papilla.

The inflammatory and gangrenous vary greatly in their seat, according to the depth to which they may have penetrated.

d. ULCERS are solutions of continuity in the skin or in a mucous membrane. They are divided according to their depth into ulcers proper or excoriations.

II. RELATIONS OF THE ORGANIC SYMPTOMS AMONGST THEMSELVES.—The organic symptoms are simple or compound; the latter when there is an accessory anatomical lesion besides the principal one.

There are small papular elevations at the inception of urticaria; but then the disease is not at its characteristic stage, these papules shortly disappear, and are replaced by the characteristic spots of the affection. Occasionally the papule is the accessory element of the affection, as in papular erythema the erythematous spots are extended, whilst the papules are rare and disseminated. At other times, the papule may become the principal element, the spot the accessory element, as in lichen lividus.

Different varieties of spots may combine themselves, as in rheumatic purpura, in hemorrhagic urticaria; these spots are partially congestive, partially hemorrhagic: the latter is predominant in the first affection, and the former in the second affection.

The above statement is equally true of pimples; they may give rise to compound symptoms. Strophulus, for instance, which is a lichnoid affection characterized by rose or white papules, attacking children at the breast, and, by its relapses and extension, soon acquires all the characters of benign cutaneous scrofulides. This strophulus is not always exclusively papular, it may be erythematous: strophulus intertinctus. Whenever there is any doubt as to the pimples being liquid or solid, puncture will instantly decide it.

Solid pimples may also give rise to a compound symptom; papules and tubercles are frequently mistaken for one another, as they vary not only in size but in consistency. There is in the Salle St. Foy a woman affected with syphilis; she has an exanthematous syphilide: a type of the cerasus syphilide of Cullerier. It is an error to consider them tubercular, they have not that consistency, the elementary lesion is papular; it is a papular syphilide.

The size of the liquid pimples may also occasion errors; if the vesicles in eczema are slightly voluminous, they might be taken for herpes, but the form of the group should be sufficient to prevent that error.

Too much importance should not be attached to one sign, it is by collecting them that an accurate diagnosis can be arrived at. Thus, the degree of separation between the vesicles is an excellent sign; should it be exclusively relied upon, it would lead to confounding miliaria with eczema, eczema with herpes or with hydroa.

In the order of the exfoliations there are also compound symptoms. For instance, in tænia tonsurans there are exfoliations formed by parasites and those due to a hypersecretion of the epidermis. The white flakes formed by the parasitic fun-

gus, the trycophyton, might be confounded with the epidermic squamæ, in the midst of which they are scattered ; for the epidermic hypersecretion accompanies the fungus which develops itself externally, and constitutes one of the most constant and remarkable symptoms appertaining to the second period of tænia tonsurans. The distinction between the parasitic and the cutaneous element is always possible: the fungus is white, flaky, without any well-determined form ; in the squamæ, on the contrary, the epidermis is yellowish or grayish rather than white, and it is always scaly. In certain patients the characters of the two eruptions are perfectly marked, and a good comparative study can be made on them.\*

Among the compound symptoms of the ulcers are the partially syphilitic and the partially varicose ulcers. Ulcers surrounded with a zone of coppery color and on varicose limbs daily present themselves at the clinic, their borders more or less ragged or raised, their centre more or less fungoid. Another fact worthy of note are syphilitic ulcers on a patient affected with tænia tonsurans, as it is rare to find syphilis a predisposing cause of this form of tænia.

III. RELATIONS OF THE ORGANIC SYMPTOMS TO THE AFFECTIONS. —An affection is a morbid condition of one or several organs, characterized either by a morbid function or by a lesion. It has a stage of inception, a characteristic stage, and one of decline. The lesions vary with the stage. To avoid the error of the physicians who have so multiplied the polymorphous affections, it will be absolutely necessary to examine the affection at its characteristic stage. Variola and eczema cannot be positively diagnosticated at their inception. In fungoid micosis, red spots first manifest themselves ; small papules form on the surface of the spots, later tumors, which acquire the size of a muscel or tomato. It would certainly be a gross error to describe this affection as erythema or lichen, for the characteristic stage of the lesion is when it has acquired the size of a tomato.

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\* Bazin, Leçons sur les affections parasitaires.



## SECONDARY ADENOPATHIES OF SYPHILIS.

BY DR. ALFRED FOURNIER\* (PARIS).

CONDENSED FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILOGRAPHIE, 1873-3,  
BY DR. EUGÈNE PEUGNET.

THERE are few diseases which affect the lymphatic system to the same extent, and as frequently as syphilis.

This action of the diathesis on the lymphatics begins with the chancre. But in the primary period it is always limited to the glands in the vicinity of the chancre. Later it becomes general, or at least disseminates itself. Thus in the secondary period—in which the influence of the diathesis specially exerts itself on the lymphatic system—the ganglions affected are much more numerous than in the primary period and are situated in various portions of the body.

The glandular lesions, like most of the syphilitic symptoms, vary in importance in different subjects. In some they are light, even to such a degree as to be unappreciable; in others they become more intense, more marked; in a few others they assume an excessive development and constitute a true syphilitic *adenophyma*; finally and more rarely, in those of a constitutionally lymphatic temperament they degenerate into chronic and suppurative buboes, which have been appropriately named syphilitic *scrofula*.

The *pathogenie* of secondary adenopathy has long been discussed. Some consider these adenopathies always symptomatic, that is, induced by lesions of the cutaneous and mucous structures; others that they are more specially, or even exclusively idiopathic, that is, directly determined by the diathesis and not by local manifestations. This discussion has not much importance, as both of these opinions are partially true. It is positive that these secondary adenopathies occasionally manifest themselves without having been induced by local phenomena. But it is not less certain that they more frequently, much more frequently manifest themselves as a sequela, or in consequence of cutaneous or mucous lesions, and their pathogenical relation with the latter accidents could not be mistaken.

On this young woman, two posterior cervical ganglions can be felt in the groove of the trapezius; they are of recent date, as they did not exist four weeks since. Moreover, the lesion which might have induced them is not discernible; there are

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\* Extract from a clinical lecture at the Hôpital de Lourcine.

no evidences of any in the nucha; in the integument of the neck; in the scalp, no crusts, not the slightest syphilide, not even alopecia. This adenopathy is therefore *essentially* idiopathic; it manifested itself under the *immediate* influence of syphilis, without having been induced by the mediate incentive of a local lesion.

This second patient is another example of the same kind: having a well-marked double epitrochlean\* adenopathy. No cutaneous lesion has given rise to it. This is, therefore, another example of *idiopathic* adenopathy.

*Per contra*: On this one there are multiple anterior cervical adenopathies, true peri-pharyngeal pleiades. But there are also buccal syphilides, and especially syphilides of the tonsils, of the velum palatinum, of the pillars, etc. On that one, sub-maxillary adenopathies; but also, papulo-erosive syphilides, and papulo-ulcerative of both lips. Finally, this one has sub-occipital posterior cervical, mastoidean adenopathies, accompanying an exceedingly confluent papulo-crustaceous syphilide of the scalp, nucha, ears, etc. It must be admitted that the adenopathies in the last three patients are symptomatic; that is, induced by the lesions of the cutaneous and mucous structures. If it were otherwise, how would it be possible to explain the direct anatomical relation of these adenopathies with the concomitant accidents, and by what unexplainable freak would the diathesis have precisely exerted its action on these ganglions? But the fact is clear, and discussion is needless.

Two points are thus established:

I. Certain syphilitic adenopathies develop themselves *sponte sua* under the sole influence of the diathesis, without any appreciable lesions of the tegumentary surface.

II. Certain adenopathies develop themselves in the vicinity of and under the manifest influence of secondary lesions; in the same manner as the primary bubo forms in the ganglia in the vicinity of the chancre, depending upon it, and under its influence.

In regard to the latter proposition, it must, however, be observed, that there exists considerable difference as to the influence these two forms of accidents exert on the ganglia. With the chancre syphilitic adenopathy has not the right, figuratively, to be wanting; it is forced, *inevitable*. With the secondary lesions, the adenopathy is only eventual, *possible*; it may or may not manifest itself, and very frequently it does

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\* Corresponding to the internal condyles of the humerus.

not produce itself. For instance, the cutaneous exanthemata rarely give rise to adenopathies; amongst others, palmar psoriasis leaves absolutely intact the ganglia of the arm and axilla; the syphilides of the vulva but rarely affect the ganglia of the groin, etc. There are but certain forms and localities of accidents which affect the ganglia in the secondary period, such as the syphilides of the scalp, and the mucous syphilides of the buccal cavity.\* It would appear that certain ganglia are more readily subject to and to manifest the influence of the diathesis. Thus, the singular election that secondary adenopathies have to affect certain regions is remarkable. There is nothing more whimsical than their most common and well-known site, the *posterior cervical region*, forming the most common sign of constitutional syphilis. The adenopathies of this region may occupy several sites, which are divisible into three groups—as follows:

I. *Posterior cervical* adenopathy, formed by the ganglia, situated in the posterior lateral portion of the neck, in the groove of the trapezius.

II. *Sub-occipital* adenopathy, formed by the corresponding ganglia, which are situated in the posterior inferior portion of the cranium at the base of the occiput.

III. *Mastoidean* adenopathy, formed by the mastoidean ganglia. Those situated behind the ear, and much less voluminous than the former, form on the surface of the mastoid process small hemispherical semi-ovoidal swellings.

These three varieties coexist in a number of patients; in others only one or two of them.

Secondary posterior cervical adenopathy is so frequent in man, that with a few exceptions it is almost constant. Although exceedingly common in woman, it is markedly less frequent than in man. The observations made in this hospital verify this assertion.

The *anterior cervical adenopathies* are the next in order of frequency. They manifest themselves on various portions of the neck; the *peri-pharyngeal* adenopathies are the most common, situated on the sides of the pharynx, in front of the sternocleido-mastoid, and are more commonly observed accompanying mucous syphilides of the throat. The *sub-hyoidean* adenopathies, situated on a level with and above the hyoid bone, and

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\* Dr. R. Campana (of Naples) has made an analogous remark: "The flattened ulcerated condylomata of the mucous membranes, especially when situated in the pharynx, more readily than the other eruptions, induce the hypertrophic or hyperplastic forms of adenopathies, etc." (*Annales de Dermatologie et de Syphilographie*, 3d year, No. 5.)

the inferior cervical adenopathies, occurring on the latero-inferior portions of the neck, are much more rare.

The *sub-maxillary* adenopathies, almost always symptomatic of the lesions of the cheeks, lips, mouth, etc., are the third in order. These are the most common adenopathies of the secondary period.

Other ganglia may be affected by syphilis. On a few patients adenopathies occupying other sites are occasionally met with, but much more rarely, such as: inguinal ones, in consequence of a lesion of the vulva or anus; parotidian, ante-auditory, epitrochlear,\* etc. In a word, there is not a ganglion shielded either from the general influence of syphilis, or from the action that a local manifestation of the diathesis may exert on it.

These lesions are essentially secondary, in the chronological order of the diathesis. They never manifest themselves coincidentally with the inception of the chancre; they never occur before the general influence of syphilis declares itself by the disseminated manifestations; and again, they are never observed in the latter part of the diathesis, the tertiary stage. They most usually manifest themselves at the inception, or in the first months of the secondary period. It is not rare to observe them late in the course of the second year. But beyond that, they become less common, and after the third year are rarely met with. They are never seen after 10, 15 or 20 years' infection, and it is needless to search for them. The search for secondary adenopathies in the primary or ultra-tertiary periods of the diathesis would be a proof of ignorance, and a pathological anachronism.

Clinically, the secondary adenopathies present the same appearances as the symptomatic adenopathy of chancre. They reproduce it, as symptoms, evolution, termination, general progress, and benign, having a tendency towards resolution, even without treatment. They are in fact essentially *cold*, *indolent*, *aphlegmasic*, and *resolutive* adenopathies.

They are usually about the size of a hazel-nut; sometimes less, for instance: the mastoid adenopathies, in other cases as large as an olive or even a nut. They begin and form themselves slowly and insidiously, without attracting the attention of the patients, who suddenly detect them, or are surprised when their physician calls their attention to them. Their *indolence* is therefore self-evident; their *aphlegmasic* nature is clear,

\* The frequency of *epitrochlear* adenopathy has been much exaggerated. I have carefully searched for it in several hundreds of patients, men and women, and I have but rarely, almost exceptionally, met with it.

as they do not determine any redness of the skin, local heat, constitutional reaction, or peripheral troubles of any kind. They are, in a word, glandular swellings, firm and hard, somewhat analogous to chancroidal buboes, having the appearance of infiltration, or of a ganglionic neoplasm. They do not form any adhesions to the free tissues and remain *free* and *movable*, which permits the appreciation of their size, shape, and renitence. They move so readily under the touch, that they might, according to the patients, be taken for subcutaneous "*hazel-nuts*." In this respect they differ essentially from the inflammatory or strumous adenopathies, which have the characteristic of forming rapid adhesions with the peripheral cellular stroma, and to become massed with the movable tissues. When they have reached their full growth, these adenopathies remain for a few weeks at the minimum, generally for several months absolutely stationary, *in statu quo*, without undergoing the slightest modification; then suddenly begin to lose their consistency and their volume decreases; the resolution taking place progressively, without exciting new phenomena, become atrophied and disappear, thus: *spontaneously resolute*.

These adenopathies are particularly remarkable for their excessively *benign* character. They have been justly called more curious than important, requiring no therapeutical treatment whatever. As they disappear without any treatment 95 times in 100, on an average, it is only necessary to treat the diathesis.

They are especially scientifically and semeiologically interesting. They are useful *indications* in an obscure case; signs appropriate to lead to the detection of unrecognized and dissimulated syphilis. For that reason, the *posterior* cervical adenopathies are especially significant: I. Of all secondary adenopathies they are the most constant; II. Their site is rarely involved in ganglionic infiltrations induced by another form of disease. Scrofula, which has a special affinity for the cervical glands, has a marked preference for the anterior ones, but rarely involving the posterior ones. It exceptionally exclusively involves the latter like syphilis. This point may be found useful in the differential diagnosis of scrofula and syphilis.

Although the above-mentioned forms of secondary adenopathies are the usual and most common ones, occurring about nineteen times in twenty, they occasionally assume another form, differing in two aspects, as to multiplicity and confluence of the affected glands, and as to the character of the lesions. Most usually the secondary adenopathies are *discrete*. As a rule a few ganglia are found at the nucha, and a few op-

posite the tonsils. But in certain cases, especially in women, it is not so, and multiple adenopathies are found which by their multiplicity are unusual. It is not by any means rare to find numerous ganglia in each groove of the trapezius, under the occiput, at mastoid apophyses, in the parotidean, sub-maxillary, sub-hyoidean, peri-pharyngeal regions, etc. They present the characters of those previously described, and are only more voluminous than usual. Occasionally they are so numerous that they present the appearance of a necklace, extending from the occiput to the middle of the neck, and from the parotidean region to the sub-clavicular fossa. These are the *cervical necklaces* of syphilis. Occasionally this glandular infiltration extends to other regions, such as the groin, axilla, etc., almost leading to the belief that a true syphilitic *lymphadenitis* was being dealt with. The name of *secondary adenophyma* is an appropriate name for this multiple and confluent glandular infiltration.

This adenophyma is tolerably frequent here. It is rational to believe that woman is more predisposed to it than man, owing to her temperament, constitution, and lymphatic tendencies. Here is one: it is needless to refer to the diagnosis; it is evident on her face, which is covered with a most typical papulosquamous syphilide. The nucha, mastoidean, sub-occipital, parotidean, sub-maxillary, sub-hyoidean, peri-pharyngeal, anterior and posterior cervical regions are studded with infiltrated glands. There are about thirty, which is not by any means the *maximum*, that this lesion can attain.

This multiplicity has a certain degree of importance in the prognosis. I am the first who has observed that the exaggerated and disseminated development of secondary adenopathy is with tolerable frequency coincident with more or less serious syphilitic manifestations, notable with disorders affecting the splanchnic organism. I have seen this adenophyma accompanied, on several occasions, with a marked anæmia, paleness, a chlorotic discoloration, general weakness, languid nutritive functions, palpitations, dyspnœa, nervous disorders, etc. Histological analysis will some day elucidate whether the white globules of the blood are not increased in number so as to constitute a temporary *leucocythæmia*.\*

Without doubt it is the temperament, or constitutional predisposition, which causes secondary adenopathies to assume, especially in women, another modification. The adenopathies

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\* In connection with colleague and friend Doctor Hayem, I have begun to investigate this point. Our researches are not sufficiently advanced to give the details of it at the present time.

first begin in the usual manner, but instead of remaining within the usual limits, they increase in size, and occasionally, but rarely, become as large as a hen's egg; thus completely simulating the glandular infiltrations of scrofula, deserving the names of *strumoidal* or *syphilo-strumous* adenopathies. At that stage, after having remained long stationary, they either resolve themselves, or become inflamed. In the latter case they become painful, immovable, *infiltrated*, and attached to the surrounding cellular tissue and integument, which becomes red. It is sometimes possible by an early anti-phlogistic treatment to arrest the progress of these *strumo-phlegmasic* adenopathies and of the accompanying *peri-ganglionic phlegmon*. More frequently, however, suppuration cannot be prevented. The abscess then formed, when properly treated, follows the usual course of an ordinary one, or of an acute ganglionic abscess, and rapidly cicatrizes. But in other conditions, especially in lymphatic or scrofulous subjects, the abscess does not cicatrize, remains fistulous, and secretes a certain quantity of pus. These *chronic* ganglionic suppurations of syphilis have been very appropriately and without exaggeration called *secondary scrofula*.

The latter forms of adenopathy have a special affinity for certain ganglia, notably for the anterior cervical regions in front of or even beneath the sterno-cleido-mastoid, in the sub-maxillary, peri-maxillary, sub-hyoidean regions, and sometimes, although much more rarely, for the inguinal glands. These strumo-phlegmasic buboes are much more frequently observed in women. There is in this respect a very sensible difference between the sexes. It is undeniable that these adenopathies are favored in their progress by a lymphatic temperament and strumous predispositions. It is not less certain that they sometimes occur in subjects entirely free from any strumous antecedents or scrofula. When the development of these adenopathies is observed in known patients, who have been long under observation, their pathogeny can be easily ascertained. But if such lesions manifest themselves in a patient whose antecedent diathesis is unknown to the physician, there will be a risk incurred that the diathesis will not be recognized, especially as patients do not always readily give information on special antecedents. It is for this reason no doubt that these strumoidal or inflammatory secondary adenopathies are considered much more rare than they really are: *they deceive the physicians*, and are too readily accepted as simple inflammatory or strumous buboes, *without searching for their primary and true origin*. Too much stress cannot be laid upon the importance of arriving at

a correct diagnosis, by making thorough inquiry into the antecedents of the patient.

In conclusion, since I have been connected with this hospital, I have on several occasions observed *retro-pharyngeal abscesses* manifesting themselves in syphilitic patients without any appreciable local cause. My colleague and friend, Doctor Peau, has also observed it. Might not these abscesses be due to retro-pharyngeal adenopathies, such as I have just described? It is only a hypothesis, but it is undoubtedly worthy of further consideration, for it might be possible that syphilis might have some share in the obscure etiology of retro-pharyngeal abscesses.

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## ON SOME AFFECTIONS OF THE SKIN OCCURRING IN PREGNANT AND PUERPERAL WOMEN.

By PROFESSOR HEBRA.

TRANSLATED FROM THE WIENER MEDIZINISCHE WOCHENSCHRIFT, NO. 48, 1872.

EVERY ONE is acquainted with the brown spots which are met with on the face and nipples and along the linea alba of the abdomen in pregnant women, and disappear after delivery. Their names of *chloasma gravidarum*, *uterinum*, etc., which are found in the works of the oldest writers, are a proof how early they were noticed and referred to their true origin. It is true that some gynaecologists have considered the *chloasma* identical with *pityriasis versicolor*; but this error is too striking, and the distinction between the two affections is too easily and too generally acknowledged, to render it necessary to dwell upon their differential symptoms.

My object is to draw attention to some other affections of the general surface, which are for the most part met with during the early months of pregnancy, and either disappear during the later months prior to delivery, or only terminate during the puerperal period. First among these may be mentioned inflammation of the hair follicles and of the sebaceous glands, which are found in the form of acne (*varius folliculitis*) on the forehead, the nose, or the chin, sometimes corresponding to *acne rosaceu*, and at others to *acne vulgaris disseminata*. I have seen women whose faces had been without a blemish have them covered during pregnancy with *comedones* that later become converted into knots of acne and pustules, and which, in spite of all remedies that can be resorted to, keep recurring until after delivery. In others there is a vivid and persistent redness



of the nose, which becomes covered by painful pustules. Some women, also, who had hitherto enjoyed excellent health, become the subjects of eczema a few days after conception has taken place. A very intelligent woman, who had borne seven children, informed me that she had suffered from eczema of her hands in each pregnancy, and that on her third conception she was made aware that a fertile coition had taken place by the itching of her fingers and the production of vesicles. The itching alone, without any efflorescence, and therefore coming under the general denomination of *pruritus cutaneus*, is a frequent attendant on pregnancy. The wife of a colleague, who has been five times pregnant, has suffered so severely from violent itching during the first five months on each occasion that her rest at night had been disturbed, her mind kept in constant irritation, and her nutrition impaired, while her skin has presented a scratched appearance, usually only seen in those suffering from epizoa.

Erythema of different forms, and urticaria, are also met with in pregnancy. The former shows itself mostly in the form of pale red spots or streaks, as in inflammation of the lymphatics, and is accompanied by severe pains in every movement. Urticaria gives rise to intense itching, restlessness, and sleeplessness, becoming at last quite unsupportable. In some cases the affection first appears in the course of quite a normal puerperal condition, and in one woman it went on to complete pemphigus. On the second day after delivery a great number of wheals appeared along the back, exactly as in urticaria; and while some of them disappeared, the greater portion were developed into bullæ filled with clear fluid. However, they did not last long, and dried up without any reproduction. As this woman had no recurrence in a later pregnancy, her case may be regarded as a doubtful example of the connection of skin disease with this condition. The same, however, cannot be said of the following case:—Several years since a young woman came to Vienna from Russia, having suffered from pemphigus during three successive pregnancies. On the first occasion it appeared during the fifth month and disappeared after delivery, and on the second it continued a month after delivery. On the third it did not thus disappear, but passed into a state of chronic pemphigus, and this it was that brought her to Vienna. Under the use of the baths of Vöslau and other means she completely recovered. Fearing a renewal of her sufferings she remained away from home until, her husband following her, conception again ensued. Even during the first month some bullæ appeared on the lower extremities, and after-

wards, as in the former pregnancies, extended to the arms. Loss of appetite and of sleep reduced her to much the same condition she was in when she first came to Vienna, and she returned home. After delivery she soon lost her pemphigus. On two subsequent occasions she became pregnant, the pemphigus reappearing on both, and lasting for some time after delivery.

It is of great interest to observe that the physiological changes in the uterus which accompany the condition of pregnancy give rise to similar diseased conditions of the general surface as are met with in several pathological conditions of the internal female organs. Thus, chloasma occurs in changes of texture or position of the uterus, chronic urticaria in fibroid and other growths, and acne rosacea may be consequent on uterine leucorrhœa or excoriation and ulceration of the uterine orifice. Eczema and seborrhœa, with fall of hair of the head, are observed in those who are chlorotic, with irregular, usually profuse menstruation, as also in the puerperal state, or after women have ceased suckling their children, and therefore at the end of lactation; while as long as they were nursing they enjoyed excellent health. Pruritus cutaneus is a frequent occurrence in old women who are already the subjects of uterine cancer, or in whom, at a later period, this disease appears. We see, therefore, that there are manifold processes of disease which, by their localization in the sexual apparatus, call forth diseased conditions of the general surface which do not appear when the same processes affect other organs. It should prove an object of interest for gynecologists to investigate the nature of this connection between the skin and internal genital organs.

In conclusion, I will describe an eruption of the general surface of which I have only met with five examples occurring in pregnant and puerperal women, and of which, as far as I know, no account has ever been published. The eruption is characterized by pustules which are filled with pus at their first appearance, and by these affecting a peculiar mode of grouping and peripheric extension. In almost every case they have first appeared at the inner surface of the thigh, partly in groups the size of a kreuzer, and partly as separate pustules the size of a pin's head. Successive crops immediately follow, extending towards the periphery in a circular or iris form, so that in the course of a few days a gradual invasion takes place of the thighs, abdomen, legs, arms, hands, and feet, and afterwards of the neck, face, and hairy scalp. While at the centre of each group the pustules become covered with flat dark-

brown scabs, at the circumference new ones filled with yellow pus are being constantly produced. In this disposition they resemble *herpes iris circinnatus*; but as from the very first it is a pustular disease, it must be regarded as a form of impetigo, and may, from its circular mode of grouping, be termed *impetigo herpetiformis*.

The affection throughout its whole course is attended by intense fever, a dry tongue, and great prostration. In three of these cases this reproduction of the pustules continued with more or less rapidity until the patient died; while in the other two, after several weeks' duration the pustules dried up, the thick scabs finally falling off and leaving the skin beneath healthy but strongly pigmented. Some of the pustules, instead of drying, especially at the bends of the joints, were converted into a grayish, stinking mass, which, lying on a red and moistened basis, assumed an eczematous appearance. No alterations occurred, and the discharges gradually dried into scabs, beneath which the epidermis was reproduced.

Only one out of the five cases finally survived. Each outbreak of pustules was preceded by shivering, which was followed by febrile action that lasted some days. Of the five women three had been delivered from two to five weeks before admission and two came in during the last month of pregnancy. The appearances of the skin were the same both before and after delivery. The autopsies of the four women who died revealed no certain cause of death; and neither the mode of life, employment, or constitution of these patients threw any light upon the origin of this affection. In none of them was there any symptom of syphilis. In the absence of all other etiological data, and seeing that these cases all occurred in pregnant women, it may be stated, in connection with the cases already referred to in this paper, as most probable that these instances of herpetiform impetigo were dependent upon a diseased change in the genital apparatus.

## ON THE EARLY SYPHILITIC AFFECTIONS OF THE BONES.\*

By CHARLES MAURIAC, M.D.,

*Physician to the Hôpital du Midi, Paris.*

TRANSLATED FROM THE GAZETTE DES HÔPITAUX, BY M. H. HENRY, M.D.

## EARLY DETERMINATION OF SYPHILIS ON THE PERICRANIUM.

CASE IV.—MULTIPLE INFECTING CHANCRES: THREE ON THE LOWER LIP, ONE ON THE CHIN, TWO ON THE PENIS, SEVERAL ON THE GLANS.—VOLUMINOUS CONSECUTIVE ADENOPATHIES OF THE JAW AND GROINS.—LONG INCUBATION.—ONE MONTH AFTER THE CHANCER, VERY SLIGHT SECONDARY ACCIDENTS. SYPHILITIC PARIETAL NODE.—VERY RAPID CURE UNDER MERCURIAL INUNCTIONS.—SLIGHT AND ACCIDENTAL ATTACK OF RHEUMATISM.—M. A. D., chimney-sweeper, 24 years of age, admitted on the 19th of November, 1869; discharged on the 22d of December, 1869. Health usually good. Has had three or four attacks of gonorrhœa, the last not completely cured. First coitus with the woman who infected him on the 21st of August. Last coitus on the 10th or 12th of September. Had had relations with her *ab ora* from the first day. Thirty-four days after the first coitus three enormous indurated chancres developed themselves on the lower lip and one on the chin; finally two on the foreskin, and others on the gland. Enormous specific adenopathy of the submaxillary and inguinal glands. A few days after pains in the limbs, insomnia. However, notwithstanding the multiplicity and volume of the chancres, the secondary accidents were very slight. About or a few days after the admission of the patient (about the 25th or 30th day of the chancre), I observed a scarcely visible roseola, a few scabs in the hair, a mucous patch in the nose, and a pharyngeal erythema. A node manifested itself on the upper part of the left parietal bone, painful when pressed, with neuralgic irradiations, without change in the color of the skin. The chancres disappeared with extraordinary rapidity under the influence of mercurial inunctions, applied to the maxillary and inguinal glands. During his stay at the Hospital, in the early days of December, he had an attack of acute rheumatism without cardiac lesion; swelling of the wrists, of the knees, of the articulations of the feet, with redness of the skin. Fever with profuse sweats. The pains lasted eight or ten days, and the fever five or six. I believe that this benign attack was accidental, occurring as the sequel to a chill on leaving the bath. On the third of January, 1870, there were no further syphilitic accidents. A red cicatrix of the chancre of the chin, and of those of the penis. Nothing on the lower lip. Ganglion still enlarged. No rheumatismal pains. I did not see the patient again.

I have frequently seen several infecting chancres in the same individual, and as the result of one contamination. Besides the fact that a chancre is solitary, is of less importance in a diagnos-

\* Continued from the last number of the Journal.

tic point of view than has been stated. Multiple infecting chancres are usually situated in close proximity, in the same region on the glands, the prepuce, the sheath, the scrotum and the pubis. I have, however, never seen, except in the preceding case, so large a number of chancres, and at such distances. The incubation of these infecting chancres was of thirty-four days, and perhaps more, for it is possible that the contagion occurred at the first coitus—on the 21st of August. It would then be an incubation of fifty-four days. I have seen longer ones, but this is not the place to discuss it. The incubation of the consecutive accidents was, on the contrary, very short. Would there be an inverse relation between the length of these two incubations in the same individual? The periosteal swelling, the neuralgia and roseola constituted the first manifestation of the slight consecutive accidents, which would tend to prove that the multiplicity of the chancres is not of serious importance in the prognosis.

**CASE V.—INDURATED NON-INOCULABLE CHANCRES.—EVOLUTION OF SYPHILIS LASTING FIVE MONTHS WITHOUT BEING SUBJECTED TO ANY TREATMENT.—NERVOUS AND RHEUMATISMAL ACCIDENTS.—NEURALGIC HEADACHE HAVING FOR CENTRE OF IRRADIATION A LEFT FRONTO-TEMPORAL SWELLING.—CONTRACTION OF THE LEFT ARM.—CONFLUENT PAPULAR SYPHILIDE.—PHARYNGEAL AND ANAL MUCOUS PATCHES.—GENERAL ADENOPATHY.**—**M. F.**, coachman, 20 years of age, usually of good health, and never having had any previous venereal disease, was admitted in March, 1869, for chancres situated behind the frænum, complicated with a preputial balanitis. Inoculation negative. He remained only twelve days in the Hospital. Eight days after leaving the hospital, intense pains in the head, principally nocturnal, involving the entire cranium, paroxysmal and more intense on the left than on the right side. Above the left eye a swelling was developed without any external cause, with a larger base than a silver dollar, without any adherence of the skin, intact at its apex, slightly sensitive to pressure, non-fluctuating, the centre of neuralgic tempero-parietal irradiations. This tumor lasted about ten or fifteen days, and then disappeared spontaneously. The neuralgic headache lasted more than one month. During this period cramps of the anterior portion of the chest, very painful, occupying the region of the origin of the insertion of the pectorales majores of both sides, preventing the drawing of the arms towards the body, with loss of all muscular power, so much so that the patient stated that he was unable to break an egg by joining his hands. Nocturnal orthopnoea. Rheumatismal pains soon followed in the muscles of the left scapula. In the early days of June, the fourth month of the disease, the region of the left elbow became the site of pains occupying: I. Behind both sides of the olecranon; II. In front the outer side of the tendon of the biceps on a level with the bend of the elbow. Complete extension of the forearm on the arm was impossible; there was no appreciable alteration in the body of the muscle; its tendon was abnormally distended; there was a similar but slighter pain in the bend of the elbow of the right arm. There were also intense pains in the anterior and median region of both

thighs; besides, about a month after the inception of the chancre, an extremely confluent papular syphilide manifested itself on the body and mucous patches about the throat and anus. Notwithstanding his sufferings in nearly all parts of the body he did not undergo any treatment. On the 20th of June, in the fifth month of the disease, he consulted me again. His general health was but slightly affected, the pains had subsided; there were no mucous patches, and the papular syphilide was subsiding. There were very large inguinal, cervical and maxillary adenopathies. The temporal swelling had disappeared. One grain of the protiodide of mercury and fifteen grains of the iodide of potassium were ordered to be taken each day. On the 2d of August, sixth month of the disease, after four or five days' treatment, the pains had almost entirely disappeared; gradual diminution of the papules and the ganglia soon followed, but recurrence of the mucous patches of the throat. I did not see this patient again.

In this case the periosteal swelling of the pericranium presented features similar to the preceding observations: it manifested itself at the inception of the consecutive accidents; it coincided with a tempero-parietal neuralgia; it was of short duration; it subsided and disappeared without leaving any traces. The cure was spontaneous as well as that of the other consecutive accidents, and during the first five months of the disease there was no treatment. It is questionable whether this patient would have been attacked with all these rheumatic and neuralgic attacks of the head, thorax, and in the elbows, if he had taken mercury and the iodide of potassium. It is probable that he would have had a few attacks, but they would have been milder, and would have extended over a longer interval. Among the painful manifestations of the inceptions of syphilis the costo-sternalgias, with or without nocturnal oppressions, are one of the most frequent and characteristic. I shall allude to this hereafter. A very marked accident, and revealing alone the nature of the disease in otherwise obscure cases, is the pain situated at and above the bend of the elbow near the tendon of the biceps or that of the brachialis anticus.

#### GENERAL DESCRIPTION ON EPICRANIAL PERIOSTITIS.

I believe it is possible, with the preceding facts, to enter into a general history of pericranial periostitis, to determine its pathological signification, and to assign its place in the evolution of syphilis. I have described these early tumors of the head, these *nodes*, by the name of epicranial periostitis for two reasons: first, because they proceed from a true inflammatory action, from an irritative or active process, as indicated by the acute symptoms and rapid progress. They do not resemble the later periostitis, invariably indolent, of slow progress, having only a slight tendency to spontaneous resolution; many, on the

contrary, towards regression—that is, the destruction, by fatty metamorphosis, of the products of the hyperplasia ;—second, for their exclusive site is exclusively in the pericranium and are limited to this region during their entire course. It is possible that they may exist without any connection with the subjacent bones ; but the hyperæmic or inflammatory lesion of the bony tissue, admitting that it exists, remains subordinate to the periostitis, and is, so to speak, accessory. It is never followed by hyperostosis, for the resolution of periostitis leaves no trace of lesion on the cranium.

In the adult, in acquired syphilis, this form of tumor of the pericranium almost always presents the same active process, and has a decided tendency towards resolution, either spontaneous or induced by appropriate treatment. In children, in inherited syphilis, such is not the case. The cachetic phase of the disease occurring much sooner and even manifesting itself at the outset ; it may happen, and such does occur, that the processes of the pericranial tumors does not assume or leave off the irritative or resolute form for the necro-biotic and suppurative one. There is nothing absolute in these propositions, but they express, I believe, a very general fact, and one that it may be well to note, although exceptional cases may present themselves.

In an interesting memoir of Dr. Henry Roger, a case of frontal tumors is related which suppurated rapidly, although the result of acquired syphilis. The following memoranda of this observation is a remarkable example of the simultaneity of the secondary and tertiary accidents of syphilis :

A girl two years of age contracted syphilis by the kisses of an infected mother. I. Indurated chancre of the upper lip undergoing resolution. II. Copper spots of roseola on the thighs, forehead, nose, cheeks, and mucous patches on the vulva and anus. III. Multiple exostosis. Gummy tumors of the frontal bone resting on both protuberances, as large as a hazel-nut, without change of color in the skin, of a doughy consistence ; the right one reddish at its apex, and slightly glazed, having a tolerably distinct fluctuation. This is the only one which suppurated. Adjacent to these two tumors were two much smaller in size. Swelling of the lower and internal portion of both humeri, without heat or change of color in the skin. Iodide of potassium administered in a progressive dose—from four to twelve and a-half grains a day. Rapid improvement in the syphilitic accidents.

It is difficult to state precisely the origin of the gummy tumors in this case. Were they primarily periostitis, or was the periosteum invaded after the subaponeurotic tissue ? is of no importance. The essential point is, that these two tumors appeared early ; and more, the manifestations acted absolutely as the later lesions of syphilis. The early syphilitic affections of

the bony system in children are very common. UNDERWOOD has seen an exostosis on the cranium of a child born of a mother infected by her husband, and who was ignorant of the circumstance. "I have seen," says M. CULLERIER, "as the first manifestation of inherited syphilis affections of the bones and cellular tissue of children whose mothers had, only during or a short time subsequent to their pregnancy, chancres, and the earliest and most superficial secondary manifestations."

It will thus be seen that pericranial periostitis in adults is far from being as serious as in children, at least in our climate, and under the circumstances attending the development of syphilis in our midst. I have found the following case related by Dr. BASSERAU, one of our most eminent syphilographers, which resembles very strongly my own:

A young man, twenty-two years of age, contracted an infecting chancre in the beginning of January, 1844. In about five weeks there was serious constitutional trouble, soon followed by a syphilitic eczema. "The patient complains beside of a pain at the summit of the parietal protuberance. This pain began six days since and during the night; it is pulsative and causes insomnia. It begins at nine o'clock in the evening and subsides at four in the morning; it does not disappear entirely during the day, but is supportable. The examination of the painful spot permits the detection of a painful tumefaction about the size of a quarter of a dollar on the right parietal protuberance, and which is not adherent to the skin. The pain and tumefaction of the parietal bone disappeared towards the fifteenth day of treatment, nocturnal pains of the same nature then occurred in the right knee."

In an interesting brochure on uterine herpetism, the most reliable observer, Dr. GUÉNEAU DE MUSSY, relates the case of a girl, B., 38 years of age, who was admitted to the Hôpital de Lourcine with secondary accidents, mucous patches of the mouth and vulva, who presented besides on the frontal region a swelling, the seat of violent pains. "I will remark," says the author, "these cranial pains and periosteal tumefactions which accompany the secondary period. I have more than once met this exception to the laws of syphilitic evolution so admirably described by HUNTER and by RICORD. The cranial periosteum is sometimes involved at the commencement of the secondary period."



CLINICAL REMARKS ON A CASE OF NON-VENEREAL  
SYPHILIS IN WHICH THE CHANCRE HAD SOME  
RATHER UNUSUAL CHARACTERS; THE CASE ALSO  
ILLUSTRATES WELL THE INCUBATION PERIOD  
OF THE DISEASE.

By JONATHAN HUTCHINSON, Esq.,

*Senior Surgeon to the London Hospital, and to the Hospital for Diseases of the Skin.*

Mr. ———, aged 31, married, was first seen by Mr. Hutchinson about the end of the third week in September, on account of a sore on the ulnar side of his right ring-finger. It had then existed for three weeks. It was at the end of the finger, and involved the matrix of the nail on one side. It was of considerable size, its edge prominent, its surface unhealthy-looking, and the surrounding tissues much inflamed. Great pain had been present from the beginning. It differed from onychia maligna in not affecting both sides of the finger and the whole matrix of the nail, in the presence of a very prominent edge and a considerable surface of ulceration, and in occurring in an adult. These features had led to a suspicion that it might be cancerous on the part of the surgeon who first saw him. Mr. Hutchinson removed the nail, and ordered the diligent use of lead lotion, in the hope that the case was a somewhat unusual one of ordinary onychia. After persevering for a fortnight with this treatment, Mr. Hutchinson found that the sore had increased in size, and still remained extremely painful and much inflamed. Suspecting now that it was a chancre, Mr. Hutchinson ordered black-wash instead of lead lotion; not, however, being able to obtain any evidence of syphilis beyond that furnished by the appearance of the sore, it was not considered advisable to administer mercury internally. There was at this time no enlargement of glands at the elbow or in the axilla; no rash or sore throat; and finally, there was no induration whatever at the base of the ulcer. At his third visit, on October 21, when he was shown to the class, no doubt whatever remained as to the syphilitic nature of the sore on the finger. The sore had increased in size, but was still one-sided, one-half of the end of the finger and nearly all the matrix of the nail being converted into a highly inflamed ulcer, with prominent edges, and a surface covered by a little grayish, thin, unhealthy discharge. It was still very painful. There was a hard, enlarged, movable gland just above the elbow, and another of considerable size in the armpit; the latter had been noticed for about a week. For about five days a rash had been coming out, and the patient now presented a copious eruption of dusky maculae on the trunk, fronts of forearms, neck, etc. His throat had lately begun to feel "stiff" in swallowing, and the tonsils were found to be enlarged and ulcerated superficially, though not in a way characteristic of secondary syphilis. The patient, who hitherto had been quite unable to give any clue to the source of inoculation, had lately found out that at the time when he first noticed the sore on his finger one of his fellow-clerks was suffering from some venereal disease. Supposing the clerk's disease to have been syphilis, it is just possible that the patient may have been inoculated by using an office-towel fouled by discharge from the sore lip of his fellow-clerk.

Mr. Hutchinson said that this case presented several points of

interest besides the occurrence of a non-venereal chancre. Special stress was laid upon the fact that the sore occurred on one side of the finger, as distinguishing the case from onychia maligna, in which the matrix of the nail is uniformly affected, and the swelling and inflammation of the finger are therefore symmetrical. The extreme and persistent painfulness of the chancre was, Mr. Hutchinson thought, perhaps a result of the matrix of the nail having been involved in the specific inflammation. This symptom was present in another case where the chancre implicated the same part; while a third patient, whose sore was at a little distance from the nail, had no pain, and scarcely any inflammation. The absence of specific hardening of the chancre in the patient under consideration furnished the text for some remarks on the importance of keeping in mind the variations which exist in this respect between chancres in different persons and on different parts of the body. No doubt in the present case the great amount of inflammatory swelling quite masked the specific induration; but, this apart, it is to be noted that chancres of the skin do not as a rule present such a typical degree of induration as when they occur on the glans penis. The lecturer also drew attention to the accuracy with which this case corresponded to other cases of untreated syphilis in the length of the incubation period, almost exactly two months having elapsed between the discovery of the incipient sore and the appearance of secondary symptoms. Mr. Hutchinson held that the identity of the incubative period in numerous cases of syphilis unmodified by treatment was very weighty evidence in favor of the theory that syphilis is an exanthem.—*Medical Times and Gazette*, November, 1872.

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### HYDROCELE OF THE SEMINAL VESICLE.

By N. R. SMITH, M.D., (BALTIMORE.)

DISEASES of the seminal vesicles have received very little attention from pathologists, probably because of their obscurity and infrequent occurrence. There is an excellent, but brief, article on this subject in Holme's System of Surgery, by George U. Humphry, but he does not mention the affection which I am about to describe, nor have I noticed it in any other author. The seminal vesicle is wrapped in an envelope similar to that of the ovary, and is cellular in structure. We should not be surprised, therefore, to find it similarly affected in disease.

Some twelve years since I was called to a case (in consultation with Dr. B——, of the city of Baltimore), represented to

be one of retention of urine. I found a large pyriform tumor occupying the cavity of the pelvis, and also that of the abdomen, higher than the umbilicus. There was no gaseous resonance over any part of it, but when percussed it sounded and vibrated like a fluid in a tensely distended sac. The patient was passing, every hour, half an ounce of urine perfectly normal in character. The attending physician assured me that he had repeatedly introduced the catheter into the bladder and had drawn not more than an ounce of urine; not in the least reducing the volume of the tumor.

Still I had not the slightest doubt that I was dealing with a distended bladder. All surgeons are aware that when the bladder becomes greatly distended it ascends into the cavity of the abdomen, the prostatic and membranous portions of the urethra becoming retracted and elongated, so that an ordinary catheter may be introduced its whole length, and its point not pass the uvula of the bladder, and no urine flow. The fact that urine was dribbling away involuntarily, from time to time, is also well known to be a common occurrence when the bladder is distended.

I had had not long before committed to my care, from the country, a gentleman who had been suffering from distended bladder. His country physician wrote me that he had repeatedly introduced a catheter fairly into the bladder and not a drop of urine had flowed. He was quite indignant at my opinion that the bladder had not been reached, and equally astonished when I introduced a long and large catheter and drew off some five pints of turbid urine.

In the present case, then, I had at first no doubt that I should find the bladder distended. I was greatly surprised, then, when on introducing a long catheter fairly into the bladder there flowed only an ounce of perfectly normal urine. On placing my hand on the tumor I found it not in the least reduced in size, and, as I moved the catheter, I distinctly felt the instrument gliding about in close contact with the walls of the belly, and being pressed forward by the pyriform tumor. Here, for a moment, we were completely at fault—the tumor was not the distended bladder, but was manifestly a cyst, containing a fluid. It was posterior to the bladder, and displaced that organ forward. After another careful exploration externally, I introduced my finger into the rectum and found the prostate normal; but on carrying the finger deeply and to the left of it, I at once encountered an elastic tumor communicating the sensation of a sac tensely distended with fluid. On palpating with the other hand on the abdomen the vibratory motion of a fluid was manifest.

The matter was now clear. We had a hydrocele of the left seminal vesicle. We at once resolved on tapping through the rectum. This I effected with an ordinary straight trocar. On withdrawing the stylet the fluid issued with force, and in a few minutes we drew off ten pints of a brown serous fluid, bearing no resemblance to urine. No unpleasant symptoms followed, but in some four weeks it again filled, and was tapped by my colleague in the case. After this there was no recurrence.

A correct diagnosis was certainly, in this case, a matter of vital importance. Had the disease been regarded as dropsy of the abdomen, and tapping had been practised below the umbilicus, one of two disasters might have followed. Some portion of the fluid would have flowed into the peritoneal cavity, and might have caused fatal peritonitis. There would have been danger, also, of perforating the bladder, which was flattened against the anterior walls of the belly.

The facts which I have related will, I trust, aid some professional brethren in diagnosing a case of such rare occurrence.—*The Lancet*, October, 1872.

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#### ON CERTAIN FATTY OR LIPOMATOUS TUMORS, AND THEIR TREATMENT BY ABSORPTION.

By JOHN GAY, F.R.C.S.

CASES sometimes present themselves to our notice in which a considerable number of fatty deposits, varying from ten or twenty to (it has been said) a hundred, have been met with in different parts of the body of the same person. These deposits choose, for the most part, the arms, thighs, and the buttocks, as the seats of their growth, and are by no means exclusively confined to persons otherwise more than ordinarily obese. They do not attain great size; for, as additional fatty matter is deposited, so it seems disposed rather to seek other and isolated spots in which to form itself into several small tumors, then to concentrate itself in one large tumor. They are usually of firmer consistence than the ordinary solitary lipoma, and are flatter in shape, and lie more directly below, and sometimes in closer union with, the dermis. Their outline is usually but not always well defined; they are, as far as I am able to judge, devoid of cysts, and are more or less painful on pressure, according to their proximity to cutaneous nerves. They appear to differ somewhat from the "fatty outgrowth" of Brodie, as well as from the "lipoma diffusum" of Lebert. These cases have not attracted much notice, in all probability

from their being of comparatively rare occurrence; and I cannot learn that in any one case have the tumors themselves been made the subject of post-mortem examination.

That they are composed of fat, and that the tissue does not differ from healthy fat, with the exception of its being of firmer consistence, I cannot doubt.

One such case recently occurred in the course of my practice. I had seen others, and dismissed them with the advice that they had better be borne with than subjected to any treatment except that suggested by Sir B. Brodie, viz., the internal administration of an alkali—the liquor potassæ.

The results of that treatment I have not had an opportunity of learning in any one case. The case alluded to was that of a gentleman, over middle age, and in physique rather approaching that of the knight of La Mancha than his squire. He had noticed them for several years, but not until they had attained almost the size which they had respectively when I saw them, whilst several had become annoying from their having selected inconvenient sites, and such as had subjected them to pressure or friction. The patient's only other complaints (and these were of long standing) were slight dyspepsia, perhaps a little gout, with unusual coldness of skin and extremities, even in the warmer months of the year.

The question of treatment engaged my thoughts, and it suddenly occurred to me that, inasmuch as dead animal textures, so long as they are of normal structure and have not undergone molecular change,—such as the textures used for ligature, bones, cartilage, etc.,—are removable by the absorbents, if brought into contact with them in the living body, why should these fatty tumors resist their agency under like circumstances?

The only answer that I could give to this question, having the slightest air of probability, was, that the *firmness* of the fat in these tumors denoted a condition of their physical elements which was inimical to their absorption. It is known that the fat of these tumors is characterized by the crystallization and separation of its elements, especially of the margarine; and it occurred to me that it might be just this change, constituting as it does an essential difference between this and ordinary living and normal fat, which is the immediate cause why the former is able to defy the action of the absorbent system. It followed, consequently, that it is only to liquefy the fat of such a growth or tumor by heat, and the absorbents will remove it. In accordance with this view, I ordered hot baths—temperature from 120° to 130°, if it could be borne—to be repeated as often as might be safe or convenient.

The result has been that many of the tumors have been en-

tirely removed, whilst the 'nuclei' of the firmer ones alone remain. I have said "the *result*" has been so and so. I will not venture at present to go so far without qualifying the assertion with the condition, that further experience shall concur in showing that the relation to each other of the facts narrated, viz., the treatment and the *quasi* cure, is more than a coincidence.

If it should turn out to be, on further evidence, a *result*, then it might open up the question as to the treatment of other and what forms of deposits through the instrumentality of the same agency.—*The Lancet*, October, 1872.

#### CASE OF GONORRHOEA OF THE DUCTS OF COWPER'S GLANDS.

DR. MATTHEWS DUNCAN recently presented the following case, with accompanying remarks, before the Obstetrical Society of Edinburgh.

M. R. was admitted in my ward at the Royal Infirmary, 14th March, 1872: a domestic servant, æt. 17, unmarried, no children, with a complaint of a gathering in her private parts, painful when walking, and of a discharge. She says this began a month ago, and attributes it to a fall; but there is no reason to believe that the ordinary cause of vaginal gonorrhœa was absent.

March 15th.—*Physical examination*.—Vulva is healthy, except that on the right labium majus there is a swelling like a superficial abscess, and in the corresponding part of the left labium there is a slight fulness. The hymen is entire; it and the vagina and vestibule are healthy, and there is no leucorrhœa. Cowper's glands can be felt on both sides; they are hard and tender, but of natural size. Pressure on the swelling on the right side caused the evacuation of part of its contents through a very small opening close to the outer edge of the hymen, which evidently corresponds with the orifice of Cowper's gland. The discharge, of which there was about a drachm, was gelatinous, blood-stained, and mixed with a little pus. Pressure on the left side caused the evacuation of a small amount of laudable viscid pus through a similar orifice. An attempt was made to pass a small probe through the right orifice, but it required to be forced before it would enter. The evacuation of the discharge was then completed. The probe passed easily, and without forcing, through the left orifice for above half an inch. There is, therefore, inflammation of the ducts on both sides, and dilatation from obstruction of the orifice on the right side. Frequent bathing with warm water, and then with dilute liq. plumbi diacetalis, was ordered.

18th.—The right side has again filled. On pressure there was a discharge of a considerable quantity of bloody serum through the orifice. Pressure on the left side caused the discharge of a few drops of pus.

20th.—Fluid has not collected on either side. A probe was again introduced through each orifice, and found to enter fully half an inch.

25th.—Ducts slightly refilled; orifices ulcerated.

April 1st.—Patient states that since the last examination the abscess refilled on the right side, and burst two days ago; but the report of the 25th March still holds.

8th.—The ulceration about the ducts has almost completely healed.

24th.—Dismissed cured.

This case is not of common occurrence. It is to be distinguished from cases of inflammation and abscess of Cowper's glands, for these present different phenomena, and run a different course. The case was exhibited to many physicians, both resident and strangers. The opening of the glands were quite easily seen. In his early practice, he had been requested by Prof. Miller to see a young lady who had been under treatment of several medical men, both in London and Edinburgh, for leucorrhœa, ulcer of the cervix, ulcer of the vagina, etc. She was about to be married, but on account of the discharge had to delay. He examined her with the speculum, and found that she was suffering from none of these diseases, and for the moment thought the illness might be feigned, from her aversion to the marriage; but having seen the discharge on the under-clothing, he insisted on an ocular examination, and then found pus on the vulva, and a place near its right side which was tender, and which, when pressed, forced matter into the vulva; there was, in fact, abscess of Cowper's gland. He opened the abscess, but matter continued to come from the duct, and did not cease till the duct was also laid open.

Dr. Duncan also mentioned another case as showing the necessity for minute examination in cases of vaginal discharge. He was requested to see a patient of Dr. Haldane's in the Infirmary, who had albuminuria and leucorrhœa. He examined her, and said she had no leucorrhœa. His attention was afterwards called to the case by the resident physician, who said she had leucorrhœa. He got her removed to his private ward, and on making an ocular examination, she was found to be suffering from chronic eczema of the vulva, whence the pus came, and which was speedily cured by the liq. plumbi diacet.—*Edinburgh Medical Journal*, September, 1872.

## Epitome of Current Literature.

On the Action of *Rhus Venenata* and *Rhus Toxicodendron* on the Human Skin.—Dr. James C. White, in an interesting paper bearing the above title, gives a detailed history of the well known toxic action of the *Rhus Vernix* and of the *Rhus Toxicodendron*, or *R. radicans* of earlier botanists, and belonging to the family of the *anacardiaceæ*. These plants are familiarly known under their respective common names of *poisonous sumach* or *dogwood* and of *poison ivy* or *oak*. The nature of the poison was unknown until the researches of Prof. Maisch, who discovered the presence of an exceedingly volatile acid in the *toxicodendron*, which is known as *toxicodendric acid*, and forms salts with the bases. The *dogwood* has a more powerful toxic action than the *ivy*. Some persons are remarkably susceptible to their influence, cannot even pass in close proximity to them without suffering in consequence; whilst others can handle them with impunity. The latter after handling them, provided they have not washed their hands, can infect others by contact. The poisonous effects will manifest themselves in from eight hours to five days. The cutaneous manifestations of *ivy-poisoning* are *eczematous*, but there are essential differences which a practised eye can detect. It is more scattered, more irregular in its distribution, than the eruption in ordinary *eczema*. The character of the efflorescence, too, is strikingly peculiar, though indescribable. It is more uniformly vesicular than vesicular *eczema*. The vesicles seem to be born vesicles without having gone through an intermediate papular stage of development. They appear somewhat less transparent, as if the effusion had taken place in the lowest cells of the *rete Malpighii*, and have generally a peculiar tinge of color, which can only be called lurid. Upon the palmar surface their epidermal coverings are so dense that they look and feel more like papules; but the fluid character of their contents may yet be dimly seen and brought to the surface by puncture with a needle. In the later stages, those of retrogression as they may be called, the skin returns to its natural state without any marked change in the character of the eruption. In the mild cases the process of inflammation is seldom carried so far as to transform the vesicle into a pustule, and after reaching its height, its serous contents are slowly absorbed, and it flattens down, leav-



ing a fugitive, dull, colored stain to mark its seat at times. In the severer forms the œdema and erythema rapidly subside under treatment, and the excoriations, crusts, and infiltrations disappear in the same manner as an ordinary case of acute eczema. The duration of these alterations of the skin, according to their intensity, varies less than would be believed without close observation. In Dr. White's own case, an exceedingly mild one and untreated, vesicles continued to appear from October 12th to November 3d, and the whole period of development and involution was from five to six weeks. In the severest attacks, where the tissues reach their highest possible development and affect large surfaces of the body, the duration is seldom if ever more protracted than this, and the individual efflorescences run as rapid a course as those of the same degree of development in the former. The duration of an attack depends largely upon the protraction of the period during which fresh efflorescences manifest themselves. Under local treatment constantly, this period, without reference to what may be called the sequelæ, according to the doctor's experience, generally lasts from ten to fourteen days from the appearance of the eruption. To this is to be added the necessary time for the natural involution of the efflorescences last to appear, according to the degree of development to which they severally attain, from ten to fourteen days more, and we have for the ordinary course of the affection a period of from three to four weeks.

**SEQUELÆ.**—That secondary cutaneous affections may occur; but it is not due to any specific action on the part of the rhus. The toxic effects of the rhus are apt to manifest themselves at all seasons of the year by contact; but it is only in the flowering season that the toxic effects will manifest themselves by mere exposure to the emanations of the plant. That it may cause fatal results is shown by the unique case of a child six years of age who died from the effects of the poison, with which he was inoculated from the hands of a boy, who was invulnerable to its effects.

**TREATMENT.**—Doctor White believes that it is evident, from the nature of the poison and its effects as above described, that two distinct questions are to be considered in connection with the treatment of rhus-poisoning, as in toxicological therapeutics generally: 1. The necessity of a proper antidote; 2. The proper management of the changes in the tissues of the skin. As regards the antidote its application would be of doubtful efficacy, unless the case came under observation before the toxic effects had manifested themselves. It is an acid that is dealt with, and the antidote for an acid is an alkali—that is, provided the

salts thus formed are not equally poisonous. The action of most popular of all remedies in this affection, the solutic sugar of lead, is a mixed one, and seems to have been hap though unwittingly, selected as an appropriate remedy i stages. Toxicodendric acid precipitates from it an insol and therefore harmless salt, while its astringent action is adapted in many cases to the relief of the inflammatory proce of the skin. The Dr. found that in the latter stages of the a tion, the eczematous, the black-wash—calomel 3 j, lime w Oj—by far the best application to the affected parts, used a evaporating lotion, for half an hour to one hour at a time, or three times a day. He has used in connection with : moist and excoriated parts, a powder of oxide of zinc, starch 3 j, or plaster of oxide of zinc in diachylon ointmen in the management of ordinary eczema. There are pos three favorable elements at work in the black-wash : I. alkali as antidote ; II. The action of cold from evapora upon the local hyperæmia ; III. The astringent effect of mercurial powder upon the diseased tissues. The doctor in all cases of poisoning been entirely satisfied with its eff however extensive in distribution or advanced in develop the inflammatory condition of the skin. It only seems to ineffectual in the thickened epidermal coverings of the e escences of the palms. To these tardy and well protected n festations he applies solutions of corrosive sublimate, from to two grains to the ounce of water, in the same way as bl wash is used upon the other parts. By this means the ecz tuous process is checked and shortened, and the subjéctive sy toms greatly alleviated. He has never seen the operatio need of any internal treatment bearing upon the affection. simple and restricted diet in severe cases is, of course, to observed.—*New York Medical Journal*, March, 1873.

On the Non-Identity of the Origin of Variola Varicella.—M. A. Rodet is opposed to the theory that produces these two diseases. It was first advanced by The son, and Rayer, in 1835, arrived at the same conclusion, and now confirmed by Professor Hebra, notwithstanding the elusive demonstration of Trousseau, in 1865, proving the trary—the undoubtedly distinct character of the two dise M. Rodet concludes from this that the human mind is at turn frequently in a same circle, or to oscillate between opinions for a long time, before definitely fixing itself. *M renascentur quæ jam cecidere cadentique*, clearly proving eternal truth of the first aphorism of Hippocrates : *ars longa et judicium difficile*. Therefore assumes that the best me

of effectually destroying this opinion of the *identists*, and of Hebra in particular, is one of clear facts, peremptorily demonstrating: 1. That varicella only causes varicella in unvaccinated children; 2. That vaccine virus acts identically on those who have had varicella as well as on those who have not had any eruption. He cites the following observations, as tending to prove the contrary: 1st. M. G. requested him, on the 19th of March, 1870, to vaccinate his infant-girl, æt. eight months, as some of the children in the vicinity were suffering from *variolæ*, and that his children had played a few days before with them. M. Rodet found the child suffering from varicella, and concluded that the so-called variola was only *varicella*; this was confirmed by subsequent investigations. Three other children in the same family, whom he had vaccinated a few years previously, contracted the disease. On the 24th of April he vaccinated the little girl; each inoculation induced a typical vaccine pustule. 2d. On the 26th of March, he was requested to see M. P.'s son, whom he found suffering with varicella; the two other children, respectively aged five years and six months, were taken ill on the 10th of April, and presented all the appearances of varicella. On the 24th of April he vaccinated the infant; all the inoculations subsequently induced typical pustules. Finally, on the 2d of the following May he made use of these pustules to vaccinate another child, with perfect success. — *Annales de Dermatologie et de Syphiligraphie*, No. 1, 1873.

**Cutaneous Respiration.**—Röhrig gives the results of investigations on the cutaneous respiration. He finds that in the mean temperature the skin excretes 38 mm. of  $C O_2$  and 1.91 of water per hour. This is increased by food and also by increased temperature, as well as by irritants applied to the skin. He found also that the quantities of  $C O_2$  and water given off, etc., have much increased during an attack of bronchial and nasal catarrh. He thinks that gases may be absorbed by the sound skin. A rabbit, whose body was enclosed in a vessel of sulphuretted hydrogen, in such a manner that it could only gain access to the system through the skin, died with symptoms of poisoning by this gas. Chloroform also was found to exert a narcotising influence through cutaneous absorption. In another paper (*Archiv d. Heilkunde*, XIII., 341–388), Röhrig gives the results of experiments on cutaneous absorptions. Turpentine is readily absorbed as well as camphor. They are readily recognized in the urine. Conia placed on the shaved skin of a rabbit caused death in twenty-eight minutes. Many other substances also are shown to be capable of absorption by the unbroken skin.—Von Paalzow (*Pflüger's Archiv*, 1872, p. 492), finds that baths of water rich in carbonic acid do not

increase the respiration. He finds, on the other hand, that powerful irritation of the skin, such as is produced by mustard, causes increase both in the amount of carbonic acid evolved and oxygen taken in.—*Deutsche Klinik*, No. 23, 25, 1872.—*The Journal of Anatomy and Physiology*, Nov., 1872.

**Absorption of Medicinal Substances by the Skin.**—By exposing the surface of the body to vapor obtained from water in which iodide of potassium was dissolved, M. Bremond has been able to satisfy himself that this salt is absorbed by the skin. He finds that unless the skin has been well cleansed with soap before the vapor-bath, absorption does not take place below a temperature of 100.4 F.; but that if it has been thus cleansed absorption takes place at temperatures varying from 93.2 to 96.8 F. The absorbed salt commences to be eliminated with the urine at about two hours after the bath; and elimination after a single bath altogether ceases within twenty-four hours, whatever may have been the quantity of salt in the vapor or the temperature and duration of the bath. In cases, however, where ten or twelve vapor baths have been taken, elimination continues during three or four days, and where twenty-five or thirty have been taken, it continues during ten or twelve days after the last bath.—*The Journal of Anatomy and Physiology*, Nov., 1872.

**Prognosis of Warts.**—In a clinical lecture on cases of rodent cancer, Mr. J. W. Hulke draws the following conclusions from the cases that have fallen under his notice: 1. Not to think too lightly of small, hard pimples and warts in the face, in persons advanced in life, but promptly and thoroughly to excise them, especially if they show a tendency to grow, ooze and scab. Their complete excision, together with a broad fringe of sound tissue, will probably secure a future immunity. It is advantageous to close the fresh wound, when large, with a flap of sound skin from an adjoining part. 2. Never try to destroy them with nitrate of silver, as is too often done, because its action is too superficial, and its use seems often to hasten their progress. 3. When the surface of the ulcer is so irregular that complete excision is impracticable, it should be supplemented by freely burning with a hot iron those parts which could not be reached with the knife, and by the free application to them of the chloride of zinc paste. 4. Some apparently desperate cases at an advanced stage may thus be treated very successfully, if the patients possess confidence and docility. 5. Such composite operations are well borne by persons in advanced years, if care be taken to avoid much bleeding.—*Medical Times and Gazette*, January, 1873.

**Albinismus.**—Mr. W. R. Jefferiss, M.B., publishes an interesting case of albinismus, which he met with in Glamorganshire. The patient was aged one year; his parents were of a somewhat dark complexion. The peculiarity in the child was attributed by the mother to her having met and been much impressed with an Albino during her early months of pregnancy. The child, when born, was completely covered by hair or down of a light color, which, as the child grew, fell off. At four months his hair was four inches long, and of a silvery white, but not silky. He carefully avoided opening his eyes during the day, but looked out without discomfort during the evening or by candle-light. The infant was backward in cutting teeth, although at the age of nine months he had cut his upper central incisors. Dr. Beigel, who has published a work on Albinismus in a paper contributed to Virchow's *Archives*, believes that at least partial albinismus and its counter-part, Nigrismus, are dependant upon deranged nervous action. Both can occur as a consequence of influences without the organism—typhus, Addison's disease, pressure, temperature, etc. Hence they often appear as an accompaniment to other diseases, and either disappear with the same or remain behind after the exciting cause is removed. Why the same exciting cause at one time produces increase of pigment, at another want of pigment, cannot be explained.—*The Lancet*, 1872.

**Cases of Xanthelasma.**—Dr. Pye-Smith brought before the Pathological Society of London the following cases of xanthelasma: A widow, aged forty-nine, a cook, was admitted into Guy's Hospital last April. She had ague some years ago. Twelve months ago she was seized with a sharp pain in the right side of the abdomen. The skin was dry and dark-colored; urine porter-colored; stools white. After a time the skin regained its color. Two months after she was again jaundiced, but had no pain. Two days before admission the severe pain and the jaundice, returned. There were then yellow deposits of vitiligoida plana on the eyelids, and the same change on the flexure of the palms; no change elsewhere. The liver was enlarged and tender. She was supposed to be suffering from jaundice, from gall-stones. The patches slowly increased on the eyelids and the hands. The urine contained bile-pigments; no albumen or biliary acids; no tyrosine or leucine. After a time she left the hospital. She returned in September with erysipelas, from which she died. The liver weighed forty-eight ounces, surface rough, on section slightly cirrhotic; gall-bladder small, contracted, containing a small gall-stone; cystic duct obliterated; the common duct much distended. Patches of

xanthelasma found on capsule of the spleen. The next case was one of general xanthelasma, under the care of Dr. Moxon. At the autopsy the hepatic duct was found strictured by a small tumor. In these cases the xanthelasma was the result of chronic jaundice from obstruction of the duct.—*The Lancet*, October, 1872.

**Organism in Vaccine Virus.**—The statements hitherto made concerning the existence of spores in vaccine virus have always met with the suspicion of a possible external contamination. To dispel all doubts on this point Dr. Cohn, (*Virchow's Archiv.* 55 B. 1 & 2,) has conducted his experiments with extraordinary care, employing every possible means to prevent the entrance of foreign matter. Opening the pustules with fine lancets and drawing the lymph into heated capillary tubes etc. He has found, in the pock-pustules as well as in the vaccineinia efflorescence, exceedingly small, globular bodies, in molecular motion, and others similar but larger, of which it was difficult to ascertain whether they were fat-globules or originated from the smaller bodies. These simple bodies may assume an octagonal shape, form continuous pointed rows, again, appear sarcina-like or in irregular colonies or groups of cells.—*Wiener Medizinische Wochenschrift*, No. 46, 1872.

**Nerve Nævi.**—Dr. Simon, of Hamburg, denotes as nerve nævi those forms which Bärensprung has designated as nævus unius lateris, whose cause, as in zoster, lies in disease of the spinal ganglia of intra-uterine origin. With Bärensprung the author coincides in regarding as characteristic of this affection the form of its occurrence, in that it corresponds accurately to peripheral distribution of one or several spinal nerves. The one-sided cases are less characteristic. Histologically he distinguishes between the *trophic* nævus attended with hypertrophy of the cutaneous papillæ, pigmentations, and thickenings of the epidermis layers, but without hypertrophy of the skin glands and hairs, and the *vaso-motor* nævus with dilatation of the capillaries and smaller veins, a dark red color and elevated temperature. Sometimes the nævus affects only the subdividing branch of one nerve; again, it extends to other branches of the same nerve.—*Schmidt's Jahrb.*, October, 1872.

## Therapeutical Notes.

**The Treatment of Syphilis by the Inunction Cure combined with the Internal and External Use of Sulphur Waters.**—Dr. T. Edmund Güntz, of Dresden, makes some interesting and practical remarks on the merits of this combined treatment. He alludes to the want of power of mercury to prevent relapses, and to the fact that though some persons possess an immunity to its toxic action, this is an exception to the rule. He agrees with Von Sigmund, that the inunction cure has a greater and more lasting influence upon the disease, provided it is properly followed so as to avoid its bad effects, and that emaciation is not produced by it, but it is not appropriate for scrofulous persons. Having seen the benefit derived by syphilitic patients at Aachen, he has carefully examined as to the best way of combining a mercurial treatment with sulphur waters used internally and externally. He alludes to cures in which benefit has been derived from hypodermic injections of mercury and sulphur water, but prefers the inunctions. He states that heretofore the treatment has been used only at the springs, but that as the waters and salts are obtainable, he conceives the idea that the treatment might be followed at the patients' homes. In the use of this treatment, those patients who have been treated anteriorly by mercury require to undergo a preparatory course, while those who have not taken mercury can commence immediately, provided they are not emaciated; if they are, they also are to be subjected to the preparatory treatment. During this period, which is about three weeks, the patient must have a healthy, plain digestible diet, with a moderate amount of liquors. He should each day take a bath for forty-five minutes at a temperature of about 95° Fahr., after which he must lie down and keep quiet and warm for an hour, and internally he should take upon an empty stomach one bottle and perhaps two of the Aachen waters daily. The Aachen waters can be replaced by the Weillbacher waters. The results of the preparatory treatment are not uniform. Perhaps no amelioration of the patient's condition is produced, perhaps he is slightly improved, and then the syphilis may be very markedly influenced for the worse. This latter result is not of unfavorable import, as it is said to indicate to the physician the nature of the case, and to render evident a condition

which otherwise might remain latent and uninfluenced. The mode in which the waters and baths act is in the main by stimulating the secreting glands. This stimulation tends to deprive the system of any latent mercury, and when this is produced it is thought that the case for a time is made worse. When this occurs it is to be observed that although the syphilis is more active, the nutrition of the patient is improved. It is also claimed that the sulphuretted hydrogen gas evolved from the waters and baths is inhaled into the lungs, and this also acts upon the blood beneficially, and in following out this fact Dr. Güntz suggests that the cure can perhaps be expedited by the inhalation of a gas artificially prepared. When the nutrition of the body is in a satisfactory condition, it is well to begin cautiously with the use of the inunctions. If the patient is not rendered weak they may be continued; but if they produce emaciation, they should be discontinued until the nutrition is again improved. During the treatment in the winter months the patient's room should be of a temperature of about 64° Fahr., and it is not necessary to confine him to bed. In spring, summer, and fall, patients can go out-doors, being careful to avoid exposure to cold, heat, and wet, and may even follow a light business, and should take short walks. They are to wear flannel next to the skin. The diet should be substantial and easily digestible, and it may not be in as large quantities as if the patient underwent heavy exercise. Light beer and white wine may be drunk, but heavy beverages must be avoided. Dr. Güntz thinks that the inunction cure acts by the volatilization of the minute particles of mercury which enter the system through the lungs. It is also thought that the gas of the waters forms insoluble preparations of mercury in the system of the patient, and that this circumstance is of benefit in cases of ulceration of the respiratory passages and of the intestinal canal, and that in these cases and those of syphilis, complicated with pulmonary tubercular disease, inunctions are to be used carefully and sparingly, and mercury cannot be taken internally. Before using the inunctions it is well to examine the state of the patient's mouth, gums, and teeth, and have them placed in such a condition that they are not liable to become inflamed. Immediately after a bath, either of sulphur or plain water, the patient must rub briskly for ten minutes, into the lower parts of each leg, one drachm of mercurial ointment, using if he likes leather gloves. This is to be repeated on the day following; but should the slightest symptom of salivation show itself, at this or any other period of the treatment, the inunctions must be stopped immediately. It is best that the baths should be



taken in the evening, after that to use the inunctions, and then wash off the skin with soap. The patient is then to go to bed, after drinking a warm draught of hot tea with brandy, and then be wrapped up in blankets, which will induce a perspiration. He then must continue as follows: no ointment on the third day; one drachm on the arms on the fourth day, and on the fifth day none; on the sixth day one drachm of ointment rubbed on the abdomen and chest; on the seventh day he again omits the inunction, to resume it in drachm doses rubbed on the back on the eighth day. After this the patient has a rest for eight days, after which he is to continue as before if the state of the case demands a continuation of treatment. In case of salivation it is necessary either to discontinue, to reduce the quantity of ointment to one-half, or to lengthen the intervals of the inunction. During the last week of cure, the patient may drink Zittmann's decoction. After the modified treatment has been followed out thoroughly, the patient may receive still more benefit by taking the iodide of potassium in large doses for about three months. Should this method of treatment fail in any case, it is recommended to try it again at some fitting time in the same manner, and then perhaps it will be more effective. Dr. Güntz says that he has thus treated many patients who have derived benefit.—*Die Einreibungskur bei syphilis in Verbindung mit Schwefelwassern.*

On the Treatment of Gonorrhœa and especially Gleet by Medicated Bougies.—M. G. Lorey gives a detailed result of 80 cases of acute gonorrhœa, and of 20 cases of chronic gonorrhœa treated with Reynoal's medicated bougies at the hôpital du Midi. These bougies are made of gelatine and gum, the gelatine forms the skeleton, the central and resisting portion; and the gum mixed with the remedial agent is spread on the surface. They are about six inches in length, and of a diameter of about  $\frac{1}{4}$  of an inch. Their consistence varies with the temperature, more or less soft; but by dipping them in cold water they can be readily passed into the urethra without causing pain. M. Lorey has found the opiated or belladonized ones very efficacious, against chordee each one contained about  $\frac{1}{4}$  of grain. Almost immediately after the introduction of the bougie the erection subsided, and subsequent micturition was less painful. In the first stage of acute gonorrhœa he has obtained the following results: 1. It renders micturition painless, or comparatively so; 2. It allays or prevents chordee. But in the second period the belladonized sulphate of zinc bougie has not been as efficacious as anticipated. However it presents the following advantages: 1. Its use is more simple than the injection: 2. Under cer-

tain circumstances it permits the discard of the use of injection ; 3. As they require an hour to melt in the urethra, their therapeutical action on the mucous membrane is prolonged. The observations made on 60 cases lead him to arrive at the following conclusions : 1. The opiated or belladonized bougies are indicated in the first days of a gonorrhœa to allay and prevent chordee, to render micturition painless ; they have a double action ; they first allay the pain, and they isolate the inflamed parietes. 2. In the second stage the sulphate of zinc, or the belladonized sulphate of zinc bougie is really efficacious, but does not appear to be much more so than analogous injections. In chronic gonorrhœa or gleet, their efficacy is unequalled by any other treatment. The 20 cases submitted to that treatment all recovered ; requiring on an average the introduction of but 9 bougies. This rapid curative action of the bougies can be readily explained by its double action ; the  $\frac{1}{2}$  of a grain of sulphate of zinc contained in each, has an undoubted therapeutical action on the chronically inflamed mucous membrane ; moreover, they act mechanically by remaining in contact with the diseased membrane, acting as an irritant body, modifying by its presence the vitality of this membrane. It might be suggested that the success of the treatment in these cases, was due in a great measure to the hospital regimen, but this applies *à fortiori* to acute gonorrhœa. It has been objected that the bougie might induce orchitis, but its irritating action is but temporary, and necessarily modified by the belladonna ; moreover, in the 80 cases treated with them, there did not occur a single case of orchitis.—*Annales de Dermatologie et de Syphilographie*, No. 1, 1873.

**Hypodermic Injections.**—In an article contained in the *Bulletin Thérapeutique*, translated in the *Pharmaceutical Journal*, M. Adrian observes that in the preparation of a solution for hypodermic injection, the choice between the normal alkaloid and its salts is not an indifferent one. When medicines so powerfully active are injected under the skin, it appears necessary to define clearly the relation that exists between the alkaloid itself and its combinations with acids. In medical practice, sufficient importance is not always attached to this distinction, and instances are sometimes met with where the same doses of hydrochlorate, sulphate, and acetate of morphia, or of hydrochlorate and sulphate of strychnia are prescribed, although the constitution of these various salts assigns to them a sensibly different proportion of the active principle that is employed. This will be seen by an examination of the following numbers :—

|   | Crystallized Alkaloid. | Water necessary for solution. |
|---|------------------------|-------------------------------|
| One gramme (15½ grains) of hydrochlorate of morphia contains..... | 0.80                   | 20                            |
| Sulphate of morphia.....  | 0.76                   | 10                            |
| Acetate of morphia.....   | 0.86                   | 5                             |
| Sulphate of strychnia.....  | 0.75                   | 10                            |
| Hydrochlorate of strychnia.....                                   | 0.83                   | 8                             |

According to this table, one gramme of acetate of morphia contains a tenth more of morphia than the same weight of the sulphate, and a similar difference exists between the hydrochlorate and sulphate of strychnia. Certain difficulties also are met with in the preparation of the solutions, the solubility of the same salt, probably owing to its state of hydration, varying at different times. Filtration is also requisite in most instances, and the filter absorbs an unknown quantity in one experiment, no less than one-fifth of the total amount of the salt being thus retained. Solutions intended for hypodermic injection, prepared as they usually are, present another defect, namely, the alteration which they undergo after a time. Small fungi are seen to form upon their surface; then the liquid becomes turbid, and gives rise to a copious deposit. M. Adrian's experiments have shown him that the solutions of atropia and codeia are decomposed more rapidly than the others. Also when they are prepared in the cold they change more rapidly than when they are obtained with boiling distilled water. Liquids containing the alkaloids dissolved with the help of sulphuric acid are preserved better than those in which hydrochloric acid is used. Finally, solutions containing glycerine to the extent of one-fifth of the total volume may be kept for a long time without undergoing the least alteration. Based upon these observations, M. Adrian has been led to consider the following conditions to be desirable in the preparation of solutions for hypodermic injections:—1. To use exclusively alkaloids of vegetable origin in a state of purity. These are always well defined, stable, and uniform in composition, whilst their salts vary according to the equivalent of the acid which is used in their formation, and according also as they contain more or less water of crystallization. 2. To use as a vehicle boiled distilled water containing 20 per cent. of glycerine. 3. To give the preference to sulphuric acid diluted in the proportion of one of acid to ten of water, above all other acids. 4. To substitute measurement by volume for measurement by weight. *Pharmaceutical Journal, The Practitioner*, September, 1872.

The Local Use of Tar and its Derivatives in the Treatment of Skin Diseases.—Dr. L. D. Bulkley, in a paper read before the New York Dermatological Society, gives a detailed account of the use of the various species of tar in the treatment of cutaneous affections: the *pix liquida*, *oleum picis*, *oleum cadini*, *oleum rusci*, and the *oleum fagi*. Although the constituent elements of these varieties are essentially the same, yet they vary in their relative proportions. The *pix liquida* and *oleum picis* are generally made use of in this country; the *oleum cadini* in France and on the continent; the *oleum rusci* and *oleum fagi* in Germany. The Dr. does not mention it, but it is well known that the local therapeutical action of tar in cutaneous affections is twofold: 1, as a parasiticide; 2, its resolutive properties due to a special action on the diseased skin. Its properties as a parasiticide have long been extolled in the treatment of scabies, especially the *oleum cadini*. This is due to its mechanical action, not to any specific action. In the cutaneous affections caused by a vegetable parasite, even Bazin now admits that "*the oil of cade constitutes an excellent means of preparation in the treatment of tænia, but one would incur the risk of continual deceptions by requiring more of it.*" It is, therefore, evident after the admission of so high an authority, that the virtues of tar as a parasiticide are at a minimum. Its second action includes the Dr.'s description of it as a stimulant: 1, to check irritation or relieve itching; 2, check a secretion or diminish the formation of scales; 3, improve nutrition or remove all deposit. He recognizes its contra-indication in the treatment of acute cutaneous affections, in the chronic where the itching is accompanied with burning and hyperæmia, and that in chronic cases when there are excoriations and cracks, it will irritate. The Dr. advocates its use in psoriasis, eczema, and lupus erythematosus. It is undoubtedly of benefit in these cases, especially in those of a strumous nature; whilst in those of an arthritic diathesis, it is almost useless.

That there is but little efficacy in the tar *per se* is evident from Dr. Bulkley's giving to the profession a preparation of the late Dr. H. D. Bulkley, the *liquor picis alkalinus*, composed of—*picis liquidæ* 3 ij., *potassæ causticæ* 3 j., *aquæ* 3 v.; in this preparation a portion of the potassa combines with the acetic acid and forms *acetate of potassa*, another portion unites with the oil of tar, forming a liquid soap, and there is still an excess of potassa left. He also alludes to Hebra's celebrated "*tinctura saponis cum pice*," which has deservedly obtained a high reputation, especially in cases in which the latter's grooming treatment has been adopted. The therapeutical action of the liquor

piciis alkalinus is in a great measure due to the *acetate of potassa*, and the following recipes are excellent preparations of it: *R.* Potassæ acetatis 3 ij., glycerinæ et aquæ rosacæe āā q. s., misce fiat lotio 3 ij.; *R.* Potassæ acetatis 3 ij., ceratum zinci oxidi 3 j., misce et fiat ceratum. Either of these make an agreeable preparation and effectually allays the pruritus, excepting in cases of an arthritic or gouty diathesis, in which constitutional treatment becomes essential. The fact is that tar and its derivatives are undoubtedly useful in certain forms of cutaneous affections, but it will never again occupy a prominent position *per se*.—*Arch. of Scientific and Pract. Medicine*, Feb., 1873.

**Chronic Eczema of the Legs.—Rapid recovery under the Administration of the Tincture of Spurred Corn.**—Dr. Francesco Bergonzoli, assistant at the division of Cutaneous Affections in the Royal University of Pavia, relates the history of an obstinate case of chronic eczema of both legs occurring in a man aged forty-five, who had been suffering from it since infancy, that is, since his first year; so that it might be called congenital and hereditary, as his father was also subject to it.

He presented himself at the clinic of Prof. Lombroso on the 5th of February, 1872, although he had been previously relieved by Prof. Scarenzio by the hypodermic injections of the strong water of Levico. The beneficial effect was prompt, but owing to the hereditary diathesis there was a relapse the following fall. The patient's right leg was the most affected, being entirely involved, including the dorsum of the foot, the left only in its lower third. The disease had passed into the third stage; the fluid contained in the vesicles was of a yellow color, but the squamous was the predominant form.

The patient was allowed to remain in the ward for nineteen days without any treatment whatsoever, and there was no amelioration. On the 24th of February, the administration of the tincture of corn was begun, 15 minims to 13 drachms of water; half to be taken in the morning, the other half at night. On the 25th he complained of borborygmus, increased pruritus of the part affected, more marked at the internal malleoli; the urine was of a dark lemon color; the dose of the remedy was then increased to 22 minims, and rapidly increased until in six days the patient took 4½ drachms morning and evening. As the dose was increased the pruritus subsided, having effectually subsided on the fourth day; the vesicular eruption subsided, desquamation rapidly occurred, leaving the skin smooth and of an erythematous tinge.

The remedy induced a general sense of warmth and itching of the surface, more marked on the abdomen, subsequently on

the face, which induced scratching. Finally the patient lost that sense of weight and fulness of his legs. The administration of the remedy was continued for three days after the apparent recovery, after which an ecthymatous eruption manifested itself on the arms; the treatment was suspended and the crusts dried.

The patient was discharged on the 25th day—the tenth day of the treatment—in a perfect state of health. This makes the ninth case of a chronic skin disease reported as cured by the administration of the tincture of corn, in the Italian journals.—*Giornale Italiano Delle Malattie Veneree e Delle Malattie Della Pelle*. August, 1872.

**Application of Powdered Camphor in Hospital Gangrene.**—M. Netter states that he was called in consultation to a case of trauma, in which the patient was attacked with this grave complication, and in which the surgeon in attendance feared the result, notwithstanding the employment of the ordinary means of perchloride of iron, carbolic acid, etc. The appearance of the wound called to mind the phagedænic syphilitic ulcer. But in this last form a particular remedy succeeds admirably, namely, the free application of powdered camphor, that he had hitherto employed empirically and against this affection alone. This was tried in the case just mentioned, and with perfect success. A second case attended by fortunate results has been recorded by a well-known naturalist, M. le Vaillant, who had care of the wounded in the Hospital of St. Mals. In a third case, which proved equally successful, M. Netter noted a peculiarity which may perhaps afford an explanation of the mode in which camphor effects a cure. The dry matter of hospital gangrene liquefies in contact with camphor, in virtue, no doubt, of the well-known action of camphor on the fats. Hence camphorated ointments must be kept in dark places, whilst pure lard is unaffected by exposure to ordinary conditions. The camphor may also perhaps destroy the peculiar ferment. Before applying the camphor to wounds affected with hospital gangrene, they should be lightly syringed with water.—*Comptes rendus—The Practitioner*, September, 1872.

**Chloral in Venereal Ulcers.**—Dr. Accetella announces that he uses a concentrated solution of chloral to ulcers that have resisted the application of powerful caustics, such as the acid nitrate of mercury. After the first application the deep parts of the ulcer become detached, and healthy granulations spring up. To cure abrasions and simple ulcers a weak solution should be employed.—*Gazzetta Medica, Ital. Lorah*.

## About Books.

TWO LECTURES ON INHERITED SYPHILIS. By JOHN S. PARRY, M.D.  
Pamphlet, 35 Pages. J. B. Lippincott & Co.: Philadelphia. 1872.

THE interesting subject of this brochure is handled in a masterly manner by the author. His views on the differential diagnosis between specific and non-specific pemphigus is of practical importance. He recognizes the erratic course of inherited syphilis, that is, tertiary manifestations developing themselves without the intercurrent secondary lesions. This confirms the views of M. Mauriac, whose able contributions on "Early Syphilitic Affections of the Bones" are now being published in this journal. The Doctor accepts the views of Mr. Jonathan Hutchinson as to the specific origin of "Interstitial Keratitis;" these are too exclusive, for there are many cases of this disease occurring in subjects who did not inherit syphilis from father or mother, unless we admit its transmission through several generations, this assertion must be accepted with a certain degree of reservation. Dr. Parry's observations as to the relations between idiocy and syphilis deserve attention and further study. We regret that the Doctor did not consider the relations of many cases of so-called bronchial phthisis and tabes mesenterica to syphilis. He also refutes the views of Dr. Taylor that dactylitis is a rare form of syphilis. The pamphlet, although small in size, is an exceedingly valuable and interesting contribution to our knowledge of the pathology of inherited syphilis.

DIE LATENTE GONORRHOE IM WEIBLICHEN GESCHLECHT, VON DR. EMIL NOEGGERATH. New York: Bonn, Verlag von Max Cohen & Sohn. 1872.

UNDER the title of Latent Gonorrhœa in the Female Sex, the author of this monograph has grouped together a variety of familiar affections of the female genital organs, usually considered separately, and attributing to them under certain circumstances a common origin has, in fact, described a new disease: Acute perimetritis, recurrent perimetritis, chronic perimetritis, and ovaritis, as well as several catarrhal affections. These are regarded as constituting, frequently, but a single set of symptoms dependent on one and the same morbid cause,—namely, a *latent* gonorrhœa. The disease, it is assumed, usually owes its origin to a previously contracted gonorrhœa on the part of the husband, all manifest traces of which may have disappeared long before the first cohabitation. The assertion is made that ninety per cent. of all cases of gonorrhœa remain unhealed. "At least," observes the writer, "of one hundred women married to men who have

previously had gonorrhœa scarcely ten are healthy. The others suffer from some one of the disorders which the author describes. And of the tenth that have escaped," he adds, "we may safely assume that in some one or another the malady till now hidden will sooner or later on some favorable occasion come to an outbreak." In support of these propositions, fifty cases are spoken of to illustrate the author's views. These descriptions may prove valuable as contributions to gynæcology. In each of these fifty cases the existence of a previous gonorrhœa on the part of the husband is shown to have existed. More evidence than this will be demanded before this novel theory will gain much ground among the practical workers in medicine. It is stated by Ricord that of one thousand men eight hundred have had gonorrhœa. While Dr. Noeggerath admits that this estimate is not over-stated, he insists that the proportion of wives that suffer from the effects of latent gonorrhœa is large enough to correspond, and that it fully sustains his views. More evidence will be required before this question can be decided. It is important that the specialists in male genital diseases take these questions into consideration. If careful and extended observations show that ninety per cent. of the men who contract gonorrhœa subsequently marry and convey to their wives a disease denominated latent gonorrhœa, it is certainly a subject of great importance, and it demands careful investigation at the hands not only of the gynæcologist, but is a question of serious importance to those interested in the treatment of venereal diseases.

A certain degree of consideration is claimed for a conjectural connection between the source of gonorrhœa, both acute and latent, and a certain fungus which Dr. Noeggerath claims to have produced from the genital secretions of affected patients. It was found after a varying period of incubation, both in the discharge resulting from acute gonorrhœa and in certain matters escaping from the vagina, but especially from the vulvo-vaginal glands, in women presumed to be suffering from latent gonorrhœa, which is regarded as identical and alike characteristic for both affections. In fresh preparations nothing is seen, and only after several days certain germs make their appearance which rapidly attain a very considerable degree of development. Little sprouts are projected, mycelia formed, filaments are formed, and finally even fructification takes place, with production of conidia whose elements correspond to the primary germs as first seen. To say nothing of the surprising nature of a fungus which, starting from a germ without the bounds of microscopic vision, attains so readily such a comparatively high state of development, or of the marked liability to error from extraneous contamination naturally suggested by the simple character of the experiments described, the whole subject of disease germs is yet too much in its infancy to warrant conclusions, in this connection, until confirmed by the exactest and most thorough investigation.



**DU TRAITEMENT DE LA SYPHILIS, par le Docteur EUGÈNE BLACHER.** Paris, 1873.

IN this pamphlet the author affords his readers another opportunity of reading his views on the treatment of syphilis, which he had already published in 1869, in a Thesis, presented to the Faculty of Medicine of Paris, for the doctorate in medicine. The author courses over the subject in an easy, graceful way, and reiterates the generally accepted French views on the treatment of the many lesions of syphilis. It is really little more than a feeble endorsement of many great syphilographers who scarcely needed Dr. Blacher's approval. In the hypodermic use of corrosive sublimate we are glad to find he has no definite conclusions to offer. The fact is, these definite conclusions emanate too often from men who have had but a limited experience, and subsequent investigations prove that they are unreliable. In the use of the iodide of potassium he has very limited ideas. It has been shown in this Journal that in extreme tertiary lesions very large quantities are demanded to secure favorable results. The more extensive and the older the gummy deposit the greater the necessity for the administration of large and frequent doses. The author alludes to the necessity of local treatment and cleanliness.

**A HAND-BOOK OF POST-MORTEM EXAMINATIONS AND OF MORBID ANATOMY.**  
By FRANCIS DELAFIELD, M.D., etc. New York: Wm. Wood & Co. 1872. Pp. 375.

DR. DELAFIELD has given us a work that was much needed, and he has accomplished his task in an exceedingly creditable manner. It is full of practical information bearing directly on the examination of, and the best method of performing autopsies on the bodies of adults and of young children. The author has succeeded in condensing within a small space a vast amount of information on the morbid anatomy of the viscera; on the lesions found in cases of general diseases; in cases of poisoning; and in cases of death resulting from violence. The portion of the work which seems to have afforded the author most satisfaction is that devoted to tumors, which he divides into four classes: 1st. The cysts; 2d. The simple tissue tumors; 3d. The composite tissue tumors; 4th. The cellular tumors. This part of the book is very carefully worked up. The value of the work would have been greatly enhanced by the addition of illustrations. As a hand-book, however, of post-mortem examinations and of morbid anatomy it is serviceable and will meet with most favor amongst those who are most competent to judge of its merits.

**DISEASES OF THE THROAT: A GUIDE TO THE DIAGNOSIS AND TREATMENT OF AFFECTIONS OF THE PHARYNX, ŒSOPHAGUS, TRACHEA, LARYNX, AND NARES.** By J. SOLIS COHEN, M.D. New York: William Wood & Co. 1872.

Now that the practice of medicine has, in many instances, tended to-

wards the exclusive treatment of diseases of special organs by certain practitioners, works on such diseases have become more frequent, and our knowledge of their nature and treatment has become more extended as the result of the labor of men working in this field. No branch cultivated by the specialists has been more thoroughly worked up and more widely extended within a few years than the one on which Dr. Cohen reflects so much credit, and the work he has done is honorable to himself and American medicine. While there is not a great deal that is *entirely* new in his book, he has presented the matter that was already known in an interesting and useful form, and has given us much valuable material furnished by his private practice. The book is divided into fifteen chapters, eleven of them being devoted to diseases of the throat. Sore throat; Diphtheria; Sore throat of the Exanthemata; Syphilitic sore throat; and special affections of the Tonsils, Palate, Uvula, Pharynx, Œsophagus, and a very good chapter on affections of the nasal passages, in which Dr. Cohen calls attention to a pathological condition hitherto unmentioned in any work on the subject, viz.: Submucous infiltration of the sides of the vomer. The chapter on diseases of the larynx and trachea is very full, and its quality is of such a nature as to lead us to express the hope that some day the author will give us a work on this subject alone. He gives us a table of seventy-one cases of growths in the larynx (five of these in a note), all of which occurred in his own practice, with a thoroughly good exposition of the various modes of removing such growths. The bibliographical references, at the end of the book, arranged under catch heads, are extremely valuable, and afford a hint of the industry the author has displayed in getting together the literature of his subject. The work is a valuable one, and we are sure that no practitioner, specialist or otherwise, will regret having made its addition to his library.

NINETEENTH ANNUAL CATALOGUE OF THE MEDICAL SCHOOL (Boston) OF HARVARD UNIVERSITY. Pamphlet. Cambridge, 1873.

To Harvard University is due the credit of having taken the first great step towards a higher standard in medical education in this country. The curriculum of study now demanded of the alumni who purpose pursuing their studies in the Medical Department of Harvard University, is far better and more comprehensive than can be found in any other College in this country. Great credit is due to the University Faculty for the general innovations, and for the opportunities afforded for pursuing special studies. In fact this is the only college on this continent where the higher courses of special instruction can be pursued in anything like a satisfactory manner. The course pursued by Harvard will be appreciated by every well-educated physician, and the Doctorate obtained from this University will, by-and-by, be justly regarded as evidence of the owner's having passed through the best course of instruction offered to the medical stu-

dents of North America. The course of instruction extends "over three years, and has been so arranged as to carry the student progressively and systematically from one subject to another in a just and natural order." The yearly course of study is divided into two equal terms. "Either of these two terms is more than equivalent to the former 'Winter Session,' as regards the amount and character of the instruction." In the special course, for those who are already graduated Doctors of Medicine, and who desire to pursue special investigations heretofore followed only in Europe, admirable opportunities are afforded.

Every facility is given for acquiring a knowledge of venereal and cutaneous diseases at the bedside, as well as at the Dispensary. The regular course of instruction in these branches of medicine is given by gentlemen who have fairly won their positions by the ability they have displayed in their special pursuits. Harvard has adopted the right course to put down quackery—she purposes educating her students so well that the public will at once see the difference between an accomplished physician and an empiric. [The loose manner of granting diplomas, by too many of our schools, has rendered it exceedingly difficult at times to distinguish the regular graduate from the irresponsible pretender.

ON THE TREATMENT OF DISEASES OF THE SKIN: WITH AN ANALYSIS OF ELEVEN THOUSAND CONSECUTIVE CASES. BY DR. MCCALL ANDERSON. London: MacMillan & Co. 1872.

In this modest little volume, numbering about one hundred and eighty pages, Dr. Anderson conveys information of a rare and interesting character to the practising physician. In his opening chapter he states: The object of the present work is to afford statistics of 10,000 consecutive cases of skin disease met with in hospital practice, and 1,000 consecutive cases met with in private practice, to compare the results, and to allude to a few of the more interesting cases. The volume is eminently practical in character, and on every page is impressed the author's skill and judgment in the adaptation of the best therapeutical treatment to skin diseases. The substance of this little volume, so far as treatment is concerned, appeared in one of the early issues of this Journal: we therefore now only recall the attention of our readers to the merits and usefulness of these analyses in the study of dermatology.

## Obituary.

JAMES STARTIN, F.R.C.S.

MR. JAMES STARTIN, who died on December 24th, 1872, was born at Moseley, near Birmingham, in 1806. Desirous of being a surgeon, he was apprenticed to a gentleman in large practice at Atherstone. He subsequently became a dresser at the Birmingham Infirmary under the late Mr. Hodgson, who was of great service to him in many ways. In due time he entered the School at St. Bartholomew's, where he became Mr. Abernethy's prosector. He took the license of the Apothecaries' Society in 1827, the diploma of the College of Surgeons in 1828, and was elected resident Surgeon to the Birmingham Town Hospital, which post he retained for three years; afterwards becoming resident Medical Officer to the General Hospital in the same place. For the latter position he had to compete severely with Mr. (now Professor) Owen. Reverses in fortune subsequently led him to spend some years in France and Algeria. During his stay in Paris he conceived the idea of establishing a Skin Hospital in London. In 1841 he opened the London Infirmary for Skin-diseases in London Wall, having at that time very little external help, and being himself very far from well-to-do. In a few years the Hospital was transferred to a large house at Blackfriars. His success was in a large degree attributable to his great skill in the use of remedies. His mind was eminently practical, and he cared mainly for the results of his treatment. He remembered minute details of treatment by which certain cases had been cured, and had a peculiar talent for combining remedies. While he could scarcely be regarded as a successful clinical teacher, there are, nevertheless, many who have become specially skilled in the treatment of skin-diseases whose success is due to the able and practical suggestions of Mr. Startin. He gave a course of thirty-six lectures, which were published in the *Medical Times and Gazette*; and from time to time published short papers, which usually had reference to some new mode of treatment or fresh use of a drug. He introduced glycerine into medical use, brought forward a new method of treating nævi, the elastic spiral bandage, and the Stearine apparatus.

The cause of his death was due to renal disease of a very severe character. It was complicated with the presence of stone in the bladder, for the removal of which several lithotripsy operations were performed by Sir Henry Thompson. It subsequently became necessary to perform lithotomy. He recovered from this operation. An abscess in connection with the left kidney and ureter soon after developed, and an exploratory operation resulted in the escape of an enormous quantity of pus, and the removal of a calculus from the pelvis of the kidney. He died shortly after this operation. He was a kind-hearted, sincere, genial man, and leaves many who will — deeply mourn his loss.

# THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY.

JULY, 1873.

## Original Communications.

### PSORIASIS—ITS ETIOLOGY, RELATION TO RHEUMATIC DISEASE, AND THE RATIONALE OF A COGNATE TREATMENT.

By F. LE ROY SATTERLEE, M.D., PH.D.

To those of the profession who have battled with psoriasis, not only in severe exhibitions where major portions of the body are covered with this most obstinate eruption, but even where presented in more insignificant proportions, a sense of disappointment and impotency are not wanting in viewing the results of all treatment hitherto academically received and adopted.

It is needless to ask whether topical treatment with tar, green soap, oil of cade, blistering, carbolic acid or the like, and with internal arsenical medication, meets with other than temporarily suppressive or palliative results; thus seeming to evince that our treatment is at best an attack upon symptoms.

In the search for cause suggested by this dissatisfaction, it has occurred to the notice of Dr. Bence Jones, and been hinted by two or three other practitioners, that an identity or similarity of cause in psoriasis and in certain rheumatic affections was indicated, but nothing has been presented showing any extended following up or testing of the suggestion. While pursuing with interest this affection of the skin in private practice and in the N. Y. Dispensary for Diseases of the Skin, it fell also to my lot to deal with many rheumatic cases, especially in that

department of the North-eastern Dispensary of this city. The success of the latest and most logical treatment of rheumatism confirming the most scientific theory of its cause, and the continued observation of psoriasis suggesting similar chemical actions, an inquiry of patients under the latter disease developed almost universally the precedence or concomitance of rheumatic exhibitions; or otherwise a rheumatic diathesis in the person or family, and the same characteristics in inheritance of tendency, persistency of continuance or recurrence, in both diseases. It was with the satisfaction and encouragement in noting the confirmatory hints alluded to, of Bence Jones and others, that I commenced, some two years since, to test the similarity of physical conditions present in rheumatism and psoriasis, and to treat the latter disease on the theory of an identity of the *materies morbi*, and with results so uniform and permanent that I feel warranted in presenting the rationale and argument after citing a representative case, which fortunately gives necessary test conditions of long continuance, the fullest exhibition of severity and the prior treatment in the best colleges, dispensaries and asylums; thus insuring the most thorough and discreet employment on several occasions of present accepted treatment.

P. H., age 24, Irish—by occupation, a porter. The psoriasis eruption broke out eleven years ago, progressing rapidly until the whole body, except the head and hands, were covered. Spots the size of an English shilling; very close to each other, always dry and scaly; worse in cold and damp weather. After five years they appeared on the hands and face also. *Family history*—healthy on the mother's side, as far as known; mother died of some bladder disease (probably calculous). Does not know about the family on the father's side; father was killed; several brothers and sisters had this eruption. *Antecedent history*—always moderate in habits; worked hard; very active. General functions, digestion, circulatory and respiratory symptoms normal; nervous temperament. Has had rheumatism, especially within later years. Seven years ago received treatment in Manchester, Eng., internal medication for several weeks, with no effect, after which took medicine and applied salve as

recommended by friends, or on his own suggestion, with no effect; nearly killed himself by the excessive use of senna and salts. In this country, first tried the homeopathic and hydro-pathic treatments, with no effect, except to wash off the scales by excessive bathing. After this he applied to the College of Physicians and Surgeons in this city, and was exhibited to the class as a typical case of psoriasis. Sent to the Strangers' Hospital, where he received the orthodox treatment, alkaline baths, green soap and Fowler's solution, run up to very large doses per diem. After five weeks of this treatment, no improvement was noticed, as declared by the visiting physician. The same treatment more energetically tried, served only to slightly moderate the severity of the affection; after four months of this treatment he was discharged from the hospital *incurable*. He went back to work covered with the eruption. (I find at this time he suffered for two weeks with inflammatory rheumatism.) He then again tried the homeopathic treatment for three weeks, with no good results. Was sent to the N. Y. Dispensary for Diseases of the Skin, and came under my charge. He was at that time, eight months ago, completely covered with the disease, excepting the face and hands; the legs and arms one mass of eruption. I directed my internal treatment on the theory of an excess of uric acid in the system, which must be oxidized up to the point of urea; putting him on internal treatment, giving alkalies, and restricting the diet to vegetables and fruits and vegetable acids, forbidding meat, and using no external treatment except an occasional alkaline bath. Applied acetic acid externally to one or two inches of the eruption, merely as a placebo. The result manifested itself in three weeks, and from that time he gradually cleared off until in three months he was completely well, and had gained several pounds in weight during the treatment.

To demonstrate fully the theoretical basis of identity of cause and treatment, I may be permitted to allude to the chemical argument of the etiology of rheumatic affections, continuing its application to the morbid cause of psoriasis, previously alluded to as the abnormal amount of uric acid and its non-oxidation to the point of urea formation. In doing this, I use

as far as possible the form of statement of the investigators of this diathesis, whose labors give us authority: "A vast class of diseases can be proved to be errors of chemical action—interferences caused either by want of regulation, or by the introduction from without, or by the generation within the body of substances that increase, diminish, or change the *oxidation* which is necessary for the working of the body." \*

"The precise constitution of healthy blood is adjusted by the balance of the nutritive process for maintaining the several tissues, so that none of the materials appropriated for the maintenance of any part may remain in *excess* in the blood. Thus each part is in relation of an excretory organ to all the rest. For example, if the muscles did not take material for their nutrition, there might be an excess of fibrin and their other constituents in the blood; if the bones did not do so, the salts of lime might be in excess, and so on." †

Now, this balance may be destroyed, and there are two conditions most likely to have been the cause; a given constituent of the food in too great an excess; and conditions retarding the normal change of tissue, and thus preventing the appropriation of the new material to construct healthy blood. Accordingly experience shows that gout, rheumatism and allied affections are met with in individuals addicted to an over-indulgence in nitrogenous diet and generous wines, combined with sedentary habits. These conditions are intimately associated with the presence of uric and oxalic acids in the blood, and their manifestations. That there is an excess of fibrin in the blood in cases of rheumatism, has been shown by the analyses of Alderson and others. It is apparent that in rheumatism fibrin is present in more than double the usual proportion. By still more recent investigation the difference is made even greater, as it has been ascertained, the amount of fibrin in healthy blood is considerably less than 3 per cent.

Given, therefore, excessive indulgence in nitrogenous diet, accounting for excess of fibrin in the blood, and conditions which retard the transformation of effete tissue, what is likely

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\* Bence Jones.

† Kirke's Physiology.



to result? First, fibrin in excess in the blood will render the normal supply of atmospheric air for its required purposes in the economy, insufficient; while a sedentary life, independent of the foregoing, retards metamorphosis. Under these circumstances, it must follow, that if urea, carbonic acid, and ammonia represent the full oxidation of the proteids in the body, a compromise may be the result and the production of intermediate compounds. "Under ordinary circumstances when uric acid is formed, as it is in all warm-blooded animals, it must be further oxidized, or else, by its insolubility, it is deposited or combines with alkaline bases, producing calculous diseases." \*

Liebig observes that "when uric acid is subjected to the action of oxygen, it is first resolved into alloxan and urea; a *new supply* of oxygen acting on the alloxan causes it to resolve itself into oxalic acid and urea, or into oxaluric and parabanic acids, or into carbonic acid and urea."† The various excretions, as we know, are simply *removed* by the emunctories; and those excretions, it seems, must be in some *required* chemical condition, or they are imperfectly removed and otherwise remain as abnormal disturbants. The varied phases of disturbance in the vital economies produced by these abnormal conditions we can only perceive by observations of *results* and existing states; the molecular methods that determine the specific exhibitions of disease are as yet beyond our ken. What we *do* perceive is, that a certain state of *oxidation* is a prime necessity for elimination. Urea represents the oxidation more or less complete, of effete material, or of superfluous protein matter in the circulation.

If the oxidation of the proteids be not sufficiently complete, intermediate compounds are formed, and these constitute the *materies morbi* of certain diseases, such as rheumatism, etc. While uric acid may be a normal constituent of the urine, it should exist in but small quantity; hence the greater part of it is, in the system, raised, so to speak, by oxidation to urea. The kidneys do not, then, *form* urea; they merely remove it from the blood where it has been created by chemical changes.

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\* D. Campbell Black.† Liebig's *Animal Chemistry*, p. 137.

Urea, carbonic acid, water, ammonia, etc., are the results of the ultimate oxidation of effete tissue—not by direct oxidation, but through a series of chemical evolutions. In gout and rheumatism, with an excess of fibrin and uric acid in the blood, and excess of uric acid in the urine with sedentary and indulgent habits, we have affections of the white tissues, sheaths of muscles, aponeuroses, bursæ, capsular ligaments, pericardium and endocardium, and deposition of urate of soda in the joints, and we look for a deficient oxidation of effete tissue as the immediate cause of these affections. A theory corroborated by the opposite conditions which occur in the pyrexiae, in which class of diseases there is *excessive* oxidation of tissue, as represented in excessive excretion of nitrogenous compounds from the body, and in the treatment of which we give such agents as counteract oxidation, viz.: quinine, arsenic, alcohol, etc.\*

Another demonstration of these opposite states should, I think, be shown by the non-existence of rheumatism or psoriasis with consumption in the same subject, which my observation has so far indicated to me. Recapitulating our argument briefly, we have seen that certain habits of body tend to the undue accumulation of proteids in the blood; that they are absolutely in excess relatively to the wants of the system, and relatively to the amount of oxygen consumed; that urea, carbonic acid, and ammonia represent the full oxidation of proteids; and that when this process is imperfect, the formation of intermediate products must result. And that the morbid cause of gout, rheumatism, etc., are the result of the imperfect oxidation of effete tissue, a theory borne out by the treatment most successfully employed. "In gout and rheumatism, then, it is inferred theoretically, on the best possible grounds, and practically on the evidence of our senses, that there is an excess of uric acid circulating in the blood."† With this view of the cause of rheumatism, borne out by the results of its treatment, it has occurred to several observers that in some manner psoriasis seems to occur with the same abnormal physical conditions, and to be associated with the rheumatic diathesis

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\* D. Campbell Black.

† D. Campbell Black.

and being indicated as the result of a like cause, should be cured by similar treatment. Among those who have noticed this connection between rheumatism and psoriasis I would cite Dr. Begbie, who, after recounting the symptoms usually resulting from the uric acid diathesis, adds: "And there is a tendency to certain cutaneous diseases, such as psoriasis, in these patients." And Dr. W. R. Basham writes: "Psoriasis and some other eruptions are in some measure connected with the defective metamorphosis of uric acid; and the inference is still further strengthened by the well-known favorable results of an alkaline plan of treatment."\* Speaking again of the theory of oxidation, he says: "The interpretation, moreover, is strictly in accordance with what the ablest chemists have recently established, namely, the conversion, both in and out of the body, of uric acid, by the agency of oxidizing agents, into oxaluric acid, and ultimately into urea and oxalic acid. . . . The action of alkaline salts, then, appears to be to facilitate the the metamorphosis of uric acid, and hasten its conversion into oxaluric acid, which as oxalurate of ammonia or potash is excreted in the urine, and which, after passing from the bladder, is quickly split up into oxalic acid and urea."†† If, then, we will regard psoriasis and rheumatism as produced by the same general cause or condition of the system—namely, the result of the metamorphosis of an excess of nitrogenous substances—our treatment is readily suggested. Decrease the amount of nitrogenous food taken into the body, by restricting the diet, and give such remedies as will promote oxidation, so that the excess of nitrogenous material may be oxidized up to the point where it is easily eliminated from the body. In a chemical point of view, the alkaline salts constitute the most important principles promoting oxidation; even vegetable acids are converted in the system into carbonates for this purpose. The alkalies do not neutralize the uric acid, as was at one time supposed; but

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\* Dr. Basham in *The Practitioner*. Nov., 1870.

† Dr. Basham.

† Oxaluric acid ( $C_8 H_5 N_2 O_7 + H O$ ) contains two atoms of oxalic acid ( $2(C_2 O_4)$ ), and one atom of urea ( $C_2 H_5 N_2 O_2$ ).

they prevent its formation to the extent which constitutes a *materies morbi*, by oxidizing it up to urea. Lemon-juice, of which the chief constituent is citric acid, has likewise been shown to possess remarkable therapeutic properties in these, as well as other affections. Large draughts of pure water act by oxidizing, the water being decomposed, its hydrogen contributing to form ammonia, and its oxygen urea. In this treatment the good effects are but slowly manifested. Two or three weeks sometimes pass before a change is noticed; then the eruption begins to pale and to scale less; this is followed by an improved general condition. The patient says that he feels better and stronger than he has done since the first appearance of the disease. The eruption takes a natural mode of subsidence, the spots changing into rings, by the appearance of healthy skin in the centre of each spot. These rings gradually break up into segments of circles, and then disappear, leaving a faint pinkish stain on the skin, which in turn vanishes. The smaller spots (*guttata*) also disappear, some leaving transitory stains, and others none at all. When the patient is entirely well of the eruption his general health is improved; he has often gained much in weight during the treatment; and I have yet to see a case where the disease has returned after the cessation of alkaline medicine, although I have maintained (but not so strictly as during the treatment) a general vegetable diet. Several times I have suspended the treatment, and allowed a return to a meat diet, with alcoholic stimulants, which was speedily followed by a retrogression in the cure. As psoriasis is essentially a chronic affection, coming on slowly and gradually, requiring sometimes many years to cover the body, we cannot, of course, expect to speedily eradicate the disease. By this treatment, from one to six months may often be necessary to produce the desired result.

## VACCINAL SYPHILIS IN THE LIGHT OF MR. HUTCHINSON'S THIRD SERIES OF CASES.

BY FRANK P. FOSTER, M.D.,

*Director of the Vaccine Department of the New York Dispensary.*

TO THE EDITOR OF THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY:

IN your review of Mr. Jonathan Hutchinson's third series of cases of vaccino-syphilitic inoculation, published in the last number of the JOURNAL, you justly express a high estimate of the value of Mr. Hutchinson's investigations of the subject. Their value is abundantly attested by the fact that they seem to have moved *The Lancet*, which for years has, to use its own words, played the part of "*advocatus diaboli*" in regard to the matter, to admit (in a leading article of its issue for February 1st, 1873) the *possibility* of communication of syphilis by the inoculation either of the blood of a syphilitic vaccinifer, or of the serum which oozes into the vesicle if the vaccinator be unwise enough to continue to take fluid after the first drop of lymph—the true product of the vaccination—has been exhausted."

The object of the present communication is, to offer some comments on certain conclusions at which *The Lancet* arrives in the article alluded to; which conclusions you quote in your review.

The writer lays it down that the vaccinal communication of syphilis "can only take place when all the following conditions are simultaneously present:—(1), a syphilitic vaccinifer; (2), an active condition of the syphilitic element of the vaccinifer's blood; but, at the same time (3), an absence of such external symptoms of syphilis as would deter any commonly upright surgeon from using the subject of them as a vaccinifer; (4), the gross imprudence committed of employing either blood or the serum obtained after the emptying of the vesicle."

Now, I think there are good reasons for holding that syphilis

may be communicated in vaccination, not only without all these conditions being "simultaneously present," but also without a single one of them being present.

In the first place, it is not necessary that the vaccinifer should be syphilitic. Undoubtedly, A (serving as vaccinifer), cannot, unless he be syphilitic, impart syphilis to B, except, as ingeniously suggested by Dr. Ballard, the person from whom A was vaccinated were syphilitic, and syphilitic virus from that source be lying dormant in A's vesicle. But suppose B and C both to be vaccinated, at one sitting, from A's arm, in the order mentioned. Now, if B be syphilitic, there is danger that C will be syphilized, although A, the vaccinifer, may be perfectly healthy.

This is not a mere hypothesis, says M. Raymond Petit (*Transmission de la Syphilis : des Moyens de l'Eviter*, Paris, 1867, p. 15, quoted in my article on *Vaccino-Syphilitic Inoculation*, in Vol. I. of this Journal, p. 315): "In a given series of vaccinations done with the same lancet, unless the operator take the precaution, too often neglected, of washing and wiping the instrument after each vaccination, the prime source of the contagion may be, not the vaccinifer, who is perhaps healthy, but one of the vaccinated persons. Indeed, if one of the children constituting the series be syphilitic, the lancet will become charged with his blood; not, it is true, in taking vaccine from him, but, what amounts to the same thing, in inoculating him with it. This blood, transported to the children who follow after the latter, in the series, or even to the vaccinifer, in case of fresh recourse to the vesicle, may convey syphilis to all of them, to the vaccinifer as well as to the others. This really happened in a case which M. Lorain observed in 1866, at the Saint-Antoine Hospital, and which he published."

M. Bonnière vaccinated a syphilitic child, and then threw away the needle which he had used in the operation. Afterwards another physician chanced to employ the same needle in vaccinating two adults, who soon afterwards showed signs of syphilis. (See *The Lancet*, June 18, 1870.) There is a great probability that Tassani's cases, and indeed many of the other well-known instances in which a number of children have been

syphilized *at one time* in vaccination, are to be explained in a like manner.

As to the matter of "an active condition of the syphilitic element of the vaccinifer's blood," it is to be presumed that these ambiguous words refer to the blood of "a person likely to have an outburst" of syphilitic manifestations, to use the language of Mr. Henry Lee. Granting that the truth of this position were established, it cannot possibly be of any practical value, since we have no means of discerning whether or not the syphilitic element in the blood of any individual be in "an active condition," except the result of the experiment or the existence of lesions—the latter criterion being, however, expressly excluded by the terms of the third condition, viz.: "an absence of such external symptoms of syphilis as would deter any commonly upright surgeon from using the subject of them as a vaccinifer."

*The Lancet's* fourth condition, "the gross imprudence committed, of employing either blood or the serum obtained after the emptying of the vesicle," seems to imply that, by avoidance of lymph visibly tinged with blood, and by using only the first flow from the vesicle, we may avoid the conveyance of the syphilitic contagion. It has not been proved that, to be inoculable, syphilitic blood need be used in visible quantity, and, until such proof be forthcoming, what guarantee have we that lymph containing blood in quantity insufficient to be appreciable by the naked eye may not, nevertheless, contain enough to convey syphilis? Vaccine lymph, apparently pure, frequently (perhaps always) contains blood, discoverable by means of the microscope.

Some years ago, M. Ch. Robin, at the request of M. Ricord, examined various specimens of lymph issued from the French Academy, and found them *swarming* with blood corpuscles. (Depaul, Ricord, *et al.*, *De la Syphilis Vaccinale*, Paris, 1865, p. 44.) If lymph, after its removal from the vesicle, may contain blood which we cannot recognize by ordinary means of examination, how shall we analyze it *within* the vesicle? We all encounter occasionally those vaccine vesicles which, from slight violence or some other cause, betray the fact that they contain

blood, by a more or less diffused purplish hue. These we can readily recognize and avoid, but what means have we of determining whether or not, in any given case, we have to deal with a vesicle which contains blood insufficient in amount to be detected by the eye, but yet sufficient to convey syphilis?

The fact that these conditions were enunciated authoritatively by a journal of the deservedly great influence of *The Lancet* has seemed to me to warrant the criticisms above set forth. That vaccinal syphilis is easily preventable, cannot be questioned; but the conditions are more stringent than those laid down by *The Lancet*.



## Reviews.

### THE MELANODERMAS, AND ESPECIALLY ONE OF A PARASITIC NATURE.\*

THERE are so many interesting *brochures* published at the present day, that reviews have necessarily become one of the most prominent and important features of a medical journal. In reviews the general and special reader will frequently find the pith of an important subject which may be either of general or special interest to them. In the *brochure* before us, Dr. S. Paul Fabre, gives an exceedingly interesting and valuable description of the melanodermas. The importance of this subject cannot be too much dwelt upon in its practical relations to the general practitioner, and in its histological and pathological ones to the specialist.

The pigmentary cells in which the histology of these affections resides constitute the deepest layer of the rete mucosum. Although Krause asserts that, in the regions of the skin containing the most pigment, the parieties of the cells of the horny layer are themselves the seat of slight colorations. In the negro all the layers of the epidermis are colored. Moreover the pigment is of a deeper hue, and according to Kölliker, its tint gradually diminishes in intensity as far as the most superficial layer of epidermis. The pigment presents itself as granulations of a color, varying from yellow to black, and formed by a substance called *melanine*. These granulations surround the cytoblasts of the cells. They are more numerous and of a deeper hue in the skin of the nipple, scrotum and vulva; principally accumulated in the choroid, iris, and the ciliary process. When set free in a liquid, these granulations have an amebiform movement in the microscopical field. It is generally admitted that the pigment is due to a series of transformations of the hæmatosine,

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\* Des Melanodermies et en particulier d'une melanodermie a parasitaire, par le Dr. S. Paul Fabre, Médecin des Mines de Coventry, Ancien Interne de l'Asile National de Vincennes. Paris. J. B. Baillière et fils. 1872.

but this opinion has not been universally adopted. The nature of the pigment is so little known that its modifications are not any more so. Until now it has only been possible to describe the modifications in the quantity of the pigment, and in the intensity of the colorations.

The diseases of the pigmentary element can be divided into two primary divisions. In the first would be classified the diseases having an excess of pigmentation—the melanopathies. The second would, under the name of leucopathies, include the cases in which there is a *diminution* or *want* of the pigmentary element. 1. In the melanopathies there may be a localization of the pigment either in the *blood*, the viscera, or other normal structures, either in the skin, or abnormal tumors. The *melanæmias* would form the first group. The second would include the various visceral or generalized *melanosis*. The third would contain the different varieties of *dischromatous* affections and would constitute the *melanodermas*. Finally, in the fourth group, the *melanomes*, melanic tumors would be included. 2. In the second division, that of the leucopathies, the deformities rather than the diseases are included: Albinismus, the achromia of M. Bazin, and vitiligo.

Our investigations will be limited to the more or less generalized melanodermas, devoting special attention to the description of a *bronzed disease*, in which this coloration appears to be due to the presence of animal parasites. We will also endeavor to differentiate this melanoderma from the others, that of Addison, the tubercular, the cancerous, and that of M. Fauvel, etc.

To avoid errors, it is important to bear in mind that when a melanoderma is not congenital it is, generally speaking, only a symptom. If the existence of Addison's disease has been doubted and even denied, it is probably due to the improper cognomen of *bronzed disease*, by which it is frequently described. This designation is most assuredly only one of the symptoms of this disease, but which appears to be only accessory, as it is common to a number of other affections. M. Fauvel was the first to make use of the term melanoderma, and, although its etymological use may not be strictly accurate, we will continue to apply it to the cases in which there is an exaggerated coloration of the

skin, although it may be far from black. Melanoderma presents itself under numerous forms, and the degree of its development is not less varied. In the white subject, two grand divisions of melanodermas may be admitted: 1. Those in which the modification of color is due to an increase in the pigment, and might be called *true melanodermas*. 2. The pseudo-melanodermas, in which the coloration results either from an imbibition by the tissues of the substances absorbed; indigo, aniline, and nitrate of silver, or by matter accumulated in the epidermis: the green coloration of workers in copper, either to an abnormal secretion chromidrosis, or else to vascular nævi.

M. Wilson has called the abnormal colorations of the skin the *dychromatodermas*, but his classification of them is too artificial, it is only based on the variety of tints. H. Meissner has reproduced it in his work on pigmentary diseases: "The pigment is black in *melasma* or *negredo cutis*, *ephilis*, and *steanhæa nigricans*; white in *leucopathy*, *leucosma*, or *alphosis* and *albinismus*; yellow in *flavedo cutis*, *lentigo*, and *steanhæa flavescens*; blue in the cutaneous *caganopathy* of de Billard d'Anges; brown or occasionally green by the mixture of black and yellow in *chloasma* and *fasciedo cutis*. The French dermatologists have generally adopted a histological classification. M. Hardy divides his class of maculæ and deformities into the following: 1. Chromatogeneous; 2. vascular; 3. follicular; 4. papillar; 5. epidermic; 6. dermic. Whilst M. Bazin arranges the alterations of the color of the skin into the class of deformities, which he subdivides into: 1. The induced deformities, or of external origin (*ephilides*, igneal tattooing, slaty discoloration caused by the absorption of nitrate of silver, bluish tint of the nails by the absorption of indigo); 2. The spontaneous deformities, or due to an internal cause, divided into five sections, the first of which include the maculæ.

The melanodermas may be congenital or acquired, and either one or the other may be circumscribed and diffused. This distinction is important, as it facilitates the diagnosis by permitting the exclusion of a large number of melanodermas.

Congenital melanodermas are only deformities unrelated to any pathological condition, and cannot be the symptom of any

disease. The pigmentary naevi and lentigo are the two principal varieties of the congenital melanodermas. *Lentigo*, vulgarly called freckles, is usually congenital, but may occasionally manifest itself some time after birth. It is constituted of small maculae having the shape and size of a lentil. They do not project on the surface of the skin, are of a more or less brown color, and have been compared to the scales of bran. Their usual site is on the face and other uncovered portions of the body. The pigmentary naevi, almost always congenital, also present spots of various dimensions, projecting, frequently hairy, darker, more extended, better circumscribed, and less numerous than those of lentigo. There is still a form of congenital *vittiligo*, which in the vicinity of discolored spots occasionally has points containing an excess of pigment. It is well to bear in mind that there is also an *ichthyosis nigra* which is not only congenital and permanent but also hereditary. M. Hardy describes it as follows: "*Ichthyosis nigra* usually assumes the form of irregular patches, caused by the juxtaposition of a large number of rounded epidermic products, hard and of a more or less black color, sometimes general, occasionally localized on the body and extremities. *Ichthyosis* always respects the nates, the palms of the hands, and the soles of the feet," which are the only portions of the body in which the cutaneous perspiration takes place. Finally there is a congenital form of *nigrities*.

The acquired melanodermas are much more numerous and their study much more important, and can be divided into two groups; the melanodermas due to an *external cause* and those due to an *internal cause*. The first group would include the various forms of *pityriasis*, especially the *versicolor* and the *nigra*; the *chloasma* of married women, which, according to M. Bazin, are always parasitic; certain *ephilides* and the *cicatrices* of blisters. Finally our author adds another one: the *phtheriasic melanoderma*, which is the only one in the group due to an external cause that is diffused.

In the second group, melanodermas due to an *internal cause*, may be cited: Addison's disease, the *cachectic melanodermas* connected either with tuberculosis, cancer, *scrofula* or possibly

with the paludial intoxication, and icterus niger (?). These forms are always generalized, but at least not necessarily localized. Among those due to an *internal* cause and usually *circumscribed*, may be included, pigmentary syphilides, masks of pregnant women, melasma, the carate of warm climates, the scorbutic ephilides of Alibert, the form of vitiligo recently described by M. Wilson as *morphea nigra*, pellagra, and also the pseudo-pellagra of the insane, but which, according to M. Tardieu, have not the slightest relation with the true pellagra. There are a few melanodermas of internal cause that have not been noted, for they are sometimes circumscribed and at others diffused, such as the acquired nigrities certain ephilides of pregnant women, and the colorations of the skin observed in the scleroderma.

The slaty and bluish tints caused by the absorption of nitrate of silver and aniline; the professional colorations due to the imbibition of coloring matter by the tissues, or having become colored by a chemical change, as is induced in workers in copper, can be included in the large class of pseudomelanodermas.

Our author describes a *melanoderma* coincident with *phthieriasis*, asserting that as the rays of the sun, a blister, cicatrized varices; eczema of the extremities, of the scrotum, and the use of feet-warmers act as an exciting cause of igneal ephilides on the posterior and internal surface of the lower extremities, all acting on the pigmentary secretion, in a similar manner. They stimulate it, and whether it is through the circulation or by the nerves which control the nutrition and formation of pigment, the result is always the same: there is a *superpigmentation* of the skin. There are other causes acting more directly on the epidermis which can produce a similar effect. Thus the coloration of pityriasis versicolor, which is due to the *microscoporon furfur*, a vegetable parasite, which, according to Küchenmeister, resides entirely in the horny layer of the epidermis—it is not surprising that the *animal parasites* might also induce a *pigmentary accumulation* in the epidermic cells.

Dr. Fabre then cites four cases in support of his assertion which presented the following essential features: In the two

first (females), the usually uncovered portions of the body were the less colored ; in the second case especially were smooth and white, but the other portions of the body had a *bronzed* hue, the pigmentation being more marked on them, especially on the back. These cases occurred in the service of M. Ollivier at the Charité. The Doctor also quotes two other cases occurring in the service of M. Barth and M. Fournier at the Hotel Dieu, and a remarkable one reported by Chomel in 1814, which certainly sustain his views. He admits that privation and uncleanness are predisposing causes, but insists that the phtheriasis induced by the *pediculi corporis* is the exciting one.

The Doctor unhesitatingly controverts the views advanced in 1861 by M. Boucher de la Ville-Jossy, that the two cases reported by the latter were due to a cachexia, and that although he called them general prurigo, their history showed they were prurigo pediculus ; alludes in the same vein to the observations of Pouchet, Greenhow, and Gillet. M. Ball gives the following description of a disease which is undoubtedly analogous to the one observed by the Doctor : " There exists a pseudo-bronzed disease (Pseudo-Bronze Krankheit), the result of misery, inanition, of the presence of various parasites, and idiopathic anemia. This morbid condition is described by Vogt as the vagrant's disease (Vaganten Krankheit), and owing to profound depression accompanying it, simulates to a certain degree supra-renal asthenia, and may be mistaken for the latter by careless observers."

As compared with the other forms of melanodermas, the symptoms of phtheriasic melanoderma may be summed as follows : Besides a first layer of filth, which baths rapidly remove, there may exist in persons covered with pediculi an exaggerated coloration of the epidermic cells ; it is brownish ; a *sepie* ; much more intense on the covered surfaces and those less liable to friction ; the head, hands, feet, and neck more frequently exempt from this pigmentation, or are sometimes of a much lighter tint than the other portions of the body. The flexures of the articulations are not generally darker than the neighboring parts. The visible mucous membranes do not participate in this exaggeration of color. The spots are usually uniformly colored and their periphery, instead of being well defined,

gradually blends itself with the surrounding portions, which have a normal tint. The pigmentation is rarely seen in circumscribed spots. The skin is sometimes rough, it always appears to be dry, and the sudoriparous secretion is checked. The epidermis is usually thickened, in certain spots smooth and shiny, and its various layers appear to contain pigment. The removal of portions of the pigmented cells by *scratching*, leaves a paler track than the surrounding portions. This melanoderma is almost invariably coincident with intense itching, and prurigo is almost constantly present. It may occur in healthy persons as well as in those weakened by age, privation, excesses, or disease. From the limited number of cases observed, it would appear that age is a predisposing cause, all the cases having occurred between 44 and 86 years of age. Sex does not seem to influence it. The insomnia due to the pruritus may give rise to marked debility and to the various nervous troubles of phtheriasic subjects, which Alibert has observed and so well described. Ill-health is not the essential cause of the disease, but it facilitates the invasion or the development of the phtheriasis. *Causâ ablata, tollitur effectus*. This form of melanoderma has to disappear as soon as the body is free from its parasites. It is therefore curable.

Only the acquired or more or less generalized melanodermas can be compared to or mistaken for the phtheriasic melanodermas; thus:—

*Pruriginous Melanodermas*.—It has long been remarked by dermatologists that certain pruriginous affections of the skin, such as *prurigo formicans*, *lichen*, *prurigo senilis*, when of long duration, frequently cause local pigmentations. It has been frequently observed that scrotal and palmar eczema, leave traces of cure marked by a more intense pigmentation of the parts primarily affected.

*Parasitic Melanodermas of a Different Form*.—These are due to vegetable parasites. They have been called *parasitic scurf*, thus classifying under this head: *pityriasis versicolor*, *pityriasis nigra*, the *chloasma* of pregnant women, the *maculæ pepaticæ*, and the *ephelides* of pregnant women. M. Bazin admits of but one form of maculæ in pregnant women, always

parasitic. Whilst M. Hardy recognizes the *chloasma* which is parasitic; and the *ephilides*, which are due to a simple alteration of the pigment. We believe that the latter is right, and will hereafter show that it has an important bearing on the treatment. The cryptogams causing the above have received the name of *epidermophytic vegetables*. As there is but one, the *microscoporon furfur*, the lesions caused by it can be more properly united under one name, as suggested by M. Hardy, pityriasis. The pigmentary spots caused by the *microscoporon furfur* cannot be confounded with the melanodermas of a uniform tint; generally they only involve circumscribed and isolated spots, and desquamate spontaneously. It may not be out of place to mention an observation made by Prof. L. Marowsky, who arrived at the conclusion that there were two forms of Addison's disease: 1. *A true one*, always accompanied with an alteration of the supra-renal capsules; 2. *A false one*, caused by a parasite and which might occur without any supra-renal disease. After a careful microscopical examination of the fungus, he utterly failed to find any filaments (*mycelium*), and believes that this fungus must belong to the family of the cryptococci, and has named it the *cryptococcus Addisonii*. It can be readily distinguished from the *microscoporon furfur*, owing to the absence of the mycelium, which are very abundant in the latter. Besides this parasite Marowsky found, in the epidermic scales, fawn-colored and brilliant cubic crystals, the nature of which he does not indicate. M. Jaccond was inclined to believe that Marowsky's observation was one of pityriasis versicolor, but the careful research of the latter shows that this supposition is utterly untenable.

*Addison's Disease*, also known by one of its principal characteristics, *Bronzed Skin*.—The suprarenal capsule lesion was formerly considered essentially pathogenetic of this disease, but more recent researches have shown that it is only secondarily so, as the melanoderma as frequently exists without it as with it. Its general characteristics are as follows:—A sense of general debility, of lassitude and prostration, always increasing; palpitations and frequent lypothymia; gastric derangements; inappetency, diarrhoea, and more frequently vomiting; lumbo-



abdominal, and sometimes epigastric pains. Notwithstanding all these symptoms, but slight if any emaciation. The *melanoderma* is general, almost uniform, without pruritus; frequently the buccal and vaginal mucous membranes are pigmented. The uncovered portions are much darker than the covered ones. The derma, as well as the most superficial portion of the epidermis, are usually without pigment. In certain cases the hair becomes darker, and occasionally has become crisp; pigment will then be found in the hair. Addison's disease has a duration varying from a few months to several years. Sometimes it is arrested in its progress; it has even been stated that cases have been improved; but *suprarenal melasma* is almost invariably fatal.

*Tubercular melanodermas* are caused by a twofold influence: 1. When the tubercles directly attack the the organs, the lesions of which give rise to the symptoms of so-called suprarenal asthenia (Addison's disease), and it is well known that after the so-called cheesy degeneration the tubercular of the suprarenal capsules is the most common one of Addison's disease. 2. By the tubercular cachexia it is more localized than in Addison's disease, the pigmentation occurs progressively, almost always beginning with the nasal spine, extending with remarkable symmetry towards the alar nasi. At first yellow, the tint deepens as the cachexia increases. Dr. Octave Jeannin observed it in five out of seventeen fatal cases occurring in three months at the Croix-Rousse. M. Gueneau de Mussy has observed that it is almost invariably coincident with abdominal tuberculosis; so frequently with the intestinal tubercular lesion that it has led him a number of times to suspect the latter and to have his suspicions confirmed by subsequent observation.

*Cancerous melanodermas*, excluding the characteristic cachectic tint, our author doubts, although he does not deny their existence. That it might be caused by a cancerous lesion of the suprarenal capsules, or of abdominal ganglia of the sympathetic, also when the diathesis is sufficiently pronounced to cause a marked alteration in the blood and the nutrition of the tissues, or when it is melanotic, he is free to admit.

*Melanodermas Coincident with Pott's Disease.*—The Doctor does not deny that they may occur, but then believes that there is concurrent Addison's disease.

*A Melanoderma observed by M. Fauvel, and Nigrities.*—M. Fauvel observed, whilst professor at Constantinople, a remarkable case of melanoderma, the essential features of which were as follows :—

A man, æt. 28, had had three attacks of intermittent fever, otherwise perfectly healthy. In March, 1862, about a month subsequent to the last attack of fever, the skin of his face and extremities, after a day's work in the fields with his arms and legs bare, assumed a blackish hue. This progressively extended, until fifteen months afterwards he was completely black. He was then subject to night sweats, which in eight days yielded to large doses of quinine. The spleen was enormous and very painful. The liver was slightly hypertrophied, and there was but little pain in it. The blood was found healthy and no pigmentary cells were found in it. The anæmia was not marked. The skin was darker than in Addison's disease, having a *coaly* appearance. The buccal mucous membrane was much colored. A blister over the splenic region left a rose cicatrix, which blended with the surrounding hue; in two months it was much darker than the other portion of the body. In September, 1863, M. Fauvel saw the patient again. His appetite was voracious; digestion good. The coloration of the skin had become paler. The liver and spleen were much less hypertrophied, no longer painful on pressure, and he was able to resume his occupation.

This is, thus far, a unique case, although criticism has endeavored to associate it with Addison's disease. M. Tardien thought it was probably one of *nigrities*. But as the final result is unknown, it is impossible to arrive at a positive conclusion.

In the *alterations in the color of the skin in melanemia* and the *paludial cachexia*, the researches of Meckel, Virchow, Trousseau, and of Frerichs have thrown a great deal of light on this subject, and it is generally admitted that there is a relation between pernicious malarial fevers, and the causation of melænemia. The pigment does not accumulate in the epidermis, and its presence in the blood only reveals its influence on the coloration of the skin through the transparency of the tissues. It is far from constant, and more frequently there is but a well-marked anæmic hue.

The coloration of *subcutaneous melanosis* is due to small melanic tumors, which, by their generalized distribution through the cellular tissue, may give rise to a more or less brown tint. The spots vary in size, are separated from each other by spaces of healthy skin; slight pressure over each spot will reveal the presence of painful and occasionally projecting nodosities. The confounding of this disease with a *true melanoderma* is scarcely possible, also owing to the rapid progress of the former.

It would be scarcely possible to confound it with a few of the other *cachectic melanodermas*, such as those that occur in pellagra, albuminuria, in certain cases of general paralysis, anæmia, chlorosis, and of icterus.

Nor with the *coloration* caused by the absorption of *nitrate of silver*, which is first observed on the edges of the gums, when general is more marked on the face, and in some cases on the hands.

Or with the *coloration* due to the absorption by the salts of *aniline*, the integument having a violet hue. MM. A. Ollivier and Ac. Bergeron have demonstrated that this coloration is caused by the *salts* of aniline, and that the *base* itself does not induce it. "An exceedingly rational explanation of it is, that it is due to the oxidation of the sulphate of aniline in the blood, imparts to the serum a red violet tinge visible through the transparency of the integuments.

*Scleroderma*, although rare, is sometimes accompanied with yellowish or gray discoloration of the skin, or else it is covered with red spots. But the most curious coloration is the brownish, first described by M. Putegnat. The spots are always symmetrical, and occasionally the first manifestation of the disease. Usually they only manifest themselves eight or ten days after its inception.

The *pigmentary syphilides* are readily recognized by their pathological antecedents, and their almost constant site around the neck. The syphilitic maculæ are known by their characteristic stain.

After frequent recurrences of *pellagrous erythema*, the skin becomes thickened and so brown that the hands have the appearance of being gloved.

The *ephilides* are, notwithstanding their etymology, more especially associated with the melanodermas accompanying pregnancy and dysmenorrhœa. Usually making their appearance from the fourth to the fifth month of pregnancy, and gradually increase until parturition, generally subsiding after delivery, but are sometimes persistent. It is probable that partial nigrities is only an ephilide. Rayet and Dr. O. Jeannin have attributed a relation between them and suppression of the menses. Prof. Banks, of Dublin, has reported twelve cases complicated with dysmenorrhœa, all occurring in young persons between 15 and 23 years. They have also manifested themselves at the menopause.

We will not dwell upon various other colorations, such as sunburn, the sequelæ of eruptive fevers, of melasma, the carate, pseudo-melanodermas, and professional colorations, which are all readily recognizable.

The congenital melanodermas can be readily distinguished from those acquired by their intra-uterine development.

*Pathological Anatomy.*—In the melanodermas, the pigmentation has its site in the rete mucosum; the granulations are more abundant than in the normal condition, and they may be darker. In the more marked melanodermas the horny layer of the epidermis is also occasionally pigmented. This has been observed in Addison's disease, in the face and hands, and even, although very rarely, on the surface of the body. Wyatt has even related a case in which pigment was found in the most superficial layers of the derma.

In tubercular melanoderma, it has been ascertained by Jeannin, in four cases in which the coloration was limited to the surface, that the horny layer was less transparent, the various layers of the rete mucosum, but especially the row of vertical cells, seem to be infiltrated with pigment, and that the derma and subcutaneous cellular are deprived of it, but appear to be less white than usual. There is no pigment in the tissue of the papillæ, but the coloring matter extends to the bulb in the sheath of the hair, and extends deeply along with the excretory ducts of the cutaneous glands. M. G. Pouchet had observed this change of the sudoriparus glands in cachectic melanoder-

mas. In one case in which the melanoderma was generalized, M. Tripier has observed that granulations were less regularly distributed, and were frequently clustered.

In phtheriasic melanoderma, the most superficial cells appear to be pigmented, for severe scratching leaves a trace which is much paler than the surrounding portions.

In the vegetable parasitic melanodermas, the *microscoporon furfur* would occupy, according to M. Bazin, the rete mucosum; according to Kuchemeister and Amable Beauregard, the horny layer, whilst the fungus of favus has an affinity for the deeper layers of the epidermis, which, according to the latter observers, would explain the rarity of pityriasis, and the frequency of tinea favosa in children. The pigment seems to be also localized in the deep layers; and the *furfura-ceous* affections would be principally colored by the parasite. The anatomical reasons of the diurnal and seasonal changes of pityriasis versicolor are as yet unexplainable. Marowsky's unique case of melanoderma, caused by the *cryptococcus Addisonii*, which was apparently seated in the horny layer of the epidermis, might be mentioned here.

The nature of the pigment in the melanodermas appears to be the same as in the physiological condition; there is only a change in quantity. However, M. Jeannin, has found that, in the tubercular subjects, the characteristics of the *melanine*, markedly differ from the normal ones described by M. Ch. Robin. He asserts that "almost invariably the reagents give one reaction on one side, and the opposite on the other."

The blood in Addison's disease, appears to be more diffuent, and Buhl has found a diminution in the fibrin. The proportion of the leucocytes, according to Addison, is increased, on the contrary, according to Greenhow, diminished. The latter even asserts that the red globules are as numerous, and sometimes even more so than usual. The blood occasionally carries pigment; there would then be melanemia as well as Addison's disease. In the tubercular affected with melanoderma, M. Jeannin has found the blood about normal. In the melanodermas due to an external cause, parasitic or not, nothing special has been noted in the condition of the blood.

In Addison's disease, the suprarenal capsules are frequently altered. Since attention has been drawn towards the sympathetic and the abdominal ganglions in the bronzed cachexia, they have been frequently found diseased.

The liver, and spleen are frequently hypertrophied or diseased in melanemia and in the paludeal cachexia. The normal condition of the suprarenal capsule in the pigmented phthisis is usual; whilst, according to Jeannin, "the spleen and the ganglia are frequently diseased."

The mucous membrane of the mouth is frequently pigmented in Addison's disease. Blue stains are occasionally scattered over the mucous membrane of the bronchial tubes, of the intestines, and of the genitals. In the other varieties of melanoderma, excepting the one described by M. Fauvel, which was accompanied with pigmentation of the lips, buccal mucous membrane, and a livid tint of the pharynx, velum palati and pillars, there is no pigmentation of the mucous membranes.

*Pathological Physiology.*—It is evident that the lesions fail to explain this cause of the symptom, in most of the melanodermas. Nor do we even know whether the pigment is developed in *situ*, or if it is deposited from an unknown source. Admitting that this pigmentary hypersecretion cannot be attributed to a previous alteration of the blood, is it possible that, according to M. Jaccoud, the vaso-motor nerves by their influence on the secretions, explainable by the diminution of temperature observed in a few cases, or according to M. Virchow, that it is the metabolical activity of the cells, who would rather believe in the dual origin of pigment: first, it would be formed in the cells which contain it; it is autoathonic; in the other, that it comes from the coloring matter of the blood, which penetrates into the cells, and is there ultimately transformed into pigment? However, without endeavoring to solve these problems, there are two influences which appear to be capable of inducing a pigmentary hypersecretion. One from within outwards, by a direct and more or less immediate excitation of the epidermic cells; the other, inversely, acts by a functional disturbance of the nerves which preside in the formation and the accumulation of the *cutaneous*

pigment, or possibly, in certain cases, by the intermedium of blood, laden with pigment.

The vegetable parasites, the application of topical irritants, the action of certain cutaneous lesions, either wounds or eczema, scratching or heat, as in the igneal ephilides, or that of solar light and wind as in tan, may cause a pigmentary accumulation by the first influence, by a peripheral excitation.

In Addison's disease, the cachectic melanodermas, and in melænemia, it is to a more central cause of excitation that the pigmentary hypergenesis is to be attributed to.

Our author, with some misgivings as regards *à priori* reasoning, but staying himself with Bacon—*Ex errore citus emergit veritas quam ex confusione*—ventures to suggest: that the external causes act on the epidermis by causing a pigmentary hypergenesis, which is in excess of the disintegration. The deeper layers of the epidermis, becoming more rapidly superficial, do not have the time to lose their pigment. It is thus that the various external excitations cause it in phtheriasic melanoderma. The same may be seen in a more marked manner on a blister.

Erasmus Wilson and Barlow have both called attention to the influence of the peripheral nerves in the pigmentary hyperæmia. Barlow observed in one case in which pruriginous pains lasted a year, that almost the entire skin gradually became as brown as that of a mulatto. In another case occurring in India, there was a persistent anaesthesia of the fifth pair, the pigment in a short time disappeared from the portions enervated by the supraorbital branch, then on recovery, the normal coloration reappeared shortly after the return of sensibility.

In the melanodermas due to an internal cause, the mechanism is more complicated: a more abundant carriage of the pigmentary elements by the blood, or a proliferous excitation by the trophic nerves in the pigmented cells. This last hypothesis seems to be most probable. The epidermis cannot be as actively renewed as in the melanodermas of external origin. The absence of pigment in the superficial layers of epidermis would be thus explained in Addison's disease. The influence of

abdominal lesions might be also stated ; for in nearly every case of melanodermas of internal origin, an intra-abdominal influence can be traced. Not even to the ephilides of pregnancy which can be attributed to the pressure exercised on the *chromatogeneous* organ or organs. Mr. Parrot has endeavored to ally with certain nervous troubles the masks occurring independent of pregnancy, in women affected with nervosism. This coloration of the integuments coincided with various neuralgias ; hysteralgia, gastralgia, etc. Among the cases of chromichosis collected by M. Leroy de Mirecomt, many occurred in women affected with neuralgia.

*Etiology.*—The causes of congenital melanodermas are unknown.

The melanodermas of external origin may be due—1st. To the immediate contact of certain substances, such as blisters, and other irritating applications ; to cutaneous affections, such as prurigo, lichen, eczema, strophulous, and superficial wounds. 2d. To the presence of parasites, either vegetable—the *microscoporon furfur* and *cryptococcus Addisonii*—or animal, the *pediculus corporis*, *pediculus pubis*, and *pediculus tabiscen-tium*. 3d. To the more distant action of solar light, and incandescent furnaces, acting, not by burning, but by radiated heated light.

The melanodermas of internal origin may be due—1st. To a physiological condition—pregnancy. 2d. To a pathological condition—the cachexias, such as the tubercular, cancerous, scrofulous and paludial, also other conditions of profound debility. 3d. To medication or poisoning, such as the absorption of the salts of silver and aniline.

Sex and age have an influence on melanodermas. Addison's disease is more frequent in men ; those resulting from violent emotion, such as nigrities are more common in women, and necessarily those resulting from menstrual trouble, pregnancy, and from the finer texture of the skin. In old people, the phtheriasic melanoderma is more common, whilst the others generally occur in the middle age. There is a form of nigrities which manifests itself almost exclusively in old age—the spots of death. The seasons have also an influence—pellagrous



erythema and phtheriasis more common in the spring. The spots of pityriasis versicolor and nigra fade in winter and become darker in the summer.

The *prognosis* is very grave in all forms of cachectic melanodermas; favorable *quoad mortem* in the other forms; but there are a great number of colorations which are indelible. The masks of pregnancy last indefinitely. Nigrities and nitrate of silver stains are persistent. The parasitic melanodermas yield readily to parasitocides. The other forms disappear with time.

The *treatment* may be divided into two forms drawn from the indicative cause:—1st. The melanodermas caused by a local excitation; 2d. Those connected with general condition—a profound trouble in the nutrition of the tissues. In the first form, the principal indication is the removal of the cause. With the vegetable parasites, if there is any irritation of the skin, it should be first alleviated by emollient applications, then the various parasites can be destroyed by means of parasitocides whilst warm alkaline or bran baths, then sulphur and corrosive sublimate baths, will, according to the case, assist the action of the topic. The phtheriasic melanoderma must be much more rapidly attacked, owing to the tenacity and rapid increase of the *pediculi*.

The ephilides are frequently indelible, and internal medication is of but little avail. Lotions, or douches of a solution of borax and sub-carbonate of soda are of benefit. M. Hardy advises sulphur-baths, the eaux de Barèges, and the application of nitric acid pomade, 1:30; or the following lotion, which is more efficacious: *R.* Hydrargin bichlor., grs. xv; zinci sulphatis, plumbi acetatis, āā 3 ss.; sp. vini rectificat., q.s.: aquæ destillatæ, ʒ viij. Misce et fiat lotio; sigma, to be used alone, or diluted with warm water according to the susceptibility of the skin—this causes a slight redness and desquamation. The disappearance is sometimes slow, and, moreover, they are apt to return on the discontinuance of the treatment.

The cachectic melanodermas have generally but one termination, which is blended with that of the primary disease, and a palliative treatment is only indicated.

NOTE.—In a former issue of this journal,\* we adverted to the efficacy of *veratria* as a *parasiticide*, this we have been credibly informed has since been confirmed by the observations of Dr. Roosa in a case of *aspergillus*, and of Dr. R. F. Weir in several cases of pityriasis versicolor. However, this is not the only local action of *veratria*; it has also another on the ephilides or chloasma, for notwithstanding the assertion of M. Bazin, these are *not* all parasitic affections. Dr. M. H. Henry has had the opportunity of verifying this action in three obstinate cases of the ephilides of pregnancy, in which we suggested the application of *veratria*, on the hypothesis that the pigmentary deposit was due to a hypergenetic action of the peripheral nerves and that if this could be modified—that is, a continued *anæsthesia* induced which would necessarily impair their excessive action—the pigmentary deposit would be reduced to its normal standard. In all cases the treatment was successful. In one there has been a recurrence of the chloasma, since the discontinuance of the treatment, and is therefore a confirmation of the accuracy of our views; but which are further sustained by the observations of Wilson and Barlow, and especially by the case of *anæsthesia* of the fifth pair, in which the pigment had disappeared from the portion of the skin innervated by the *peripheral* distribution of the supraorbital branch.

EUGENE PEUGNET, M.D.

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#### TARNOWSKY ON VENEREAL DISEASES.†

THE first series of lectures on Venereal Diseases by Prof. Tarnowsky embraces the subject of Gonorrhœa and its Complications. Embodying the conclusions from a large experience in the chief hospital of a great capital, the eighteen lectures before us are entitled to especial notice, and promise in the completed work a valuable contribution to the literature of venereal diseases.

The series now published was delivered in 1869–70 before the Medico-Chirurgical Academy in St. Petersburg, and furnishes a connected and exhaustive treatise on the blennorrhagiæ

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† Vorträge über Venerische Krankheiten, von Dr. B. Tarnowsky, A Professor an d. kaiserl. medic.-chirurg. Academie in St. Petersburg. Mit 7 colorirt und schwarzen tafeln. Berlin, 1872. Verlag von Aug. Hirschwald. Unter d. Linden, 68.

process in the genital mucous membrane. In order to simplify the discussion of the subjects treated of in the several lectures, "without breaking the thread of the discourse by a multitude of names, citations, and accounts of minute details," a biographical index and a chapter of annotations follow each lecture. Added to an agreeable colloquial style this method, while sacrificing nothing of desirable minuteness, serves to sustain a connected interest throughout and renders the lectures more entertaining.

The first three lectures are devoted to a cursory résumé of the more important opinions which at various times have prevailed concerning the nature of gonorrhœa and its relation to other forms of venereal disease. The gradual evolution of modern more enlightened views of urethritis from the mysticism which has veiled the subject in earlier times is carefully traced. Particular mention is made of certain events which have marked the history of this subject, in order more especially to view them in the light of cotemporary science.

In 1767, Balfour, of Edinburgh, in his work "*De Gonorrhœa Virulenta*," claimed that gonorrhœa and syphilis were two separate and distinct diseases. The new doctrine elicited a sharp controversy. Hunter, in order to settle the disputed point, was induced to inoculate himself with matter taken from the urethra of a patient suffering from gonorrhœa. The result was a chancre with subsequent syphilis. A similar inoculation performed by him on a patient in St. George's Hospital, by a singular coincidence, had a like result. The conclusion was natural enough that syphilis and gonorrhœa depended on a common contagious principle and represented but one disease. Swediaur, fifteen years later, committed himself to the theory of a syphilitic and non-syphilitic gonorrhœa. He had succeeded in producing a urethritis by introducing chemical irritants into the urethra which could in no way be distinguished from the gonorrhœa ex coitu. Bell, supported by numerous experiments, chiefly done by his pupils, boldly maintained the absolute non-identity of the syphilitic and gonorrhœal poisons. Though destined to triumph ultimately, this view met at first the strongest opposition. The evidence of Hunter was too conclusive to

be easily overthrown. All the weight of rooted prejudice, conservatism, the bias of hereditary notions were arrayed against it. In France, the doctrine was treated as pernicious heresy. But old views had been undermined. There ensued a period of doubt and confusion.

Diverse and contradictory theories were rife. There was a school of anti-contagionists denying the possibility of syphilitic inoculation from chancres as well as from gonorrhœa. In Germany there arose a school which strove to reconcile all theories on a sort of middle ground. Syphilis and gonorrhœa both depended on a discrasia. In the "lues gonorrhœa" the operating poison was less intense than in the lues syphilitica and the result was a sort of syphilis in miniature—a *démi verole* it was termed by the French. The effect on the therapeutics of the disease of all this bewilderment regarding the nature of gonorrhœa was what might be expected. The so-called "*théorie d'occasion*" which prevailed at this time, the author illustrates as follows: "A patient suffering from gonorrhœa desires to marry; for precaution's sake mercury is ordered. In the same patient, in case he does not wish to marry, no specific treatment is undertaken. A man gets a urethritis from his wife in whom he has implicit confidence, consequently it is a simple catarrhal inflammation of the urethral mucous membrane. A less virtuous man contracts the same affection from a prostitute—the gonorrhœa is unquestionably syphilitic. In such manner the practical physicians were wont not only to cure the gonorrhœa but thus paid homage to virtue with non-specific treatment and chastised vice with mercury."

By degrees the doctrine of dualism gained ground, its adherents gradually accumulated, till it only required the stout championship of a man like Ricord to firmly establish its truth.

Ricord began his experiments in 1831 to determine the much-vexed question whether syphilis and gonorrhœa were identical diseases. He performed 600 auto-inoculations with gonorrhœal matter from the urethra, vagina and uterus, and not one resulted in the production of a chancre. The question arises, How is this to be reconciled with the results, diametrically opposing, of an observer no less entitled than Ricord to respect

and confidence? Hunter's conclusions from the positive results of his experiments, were not illogical, and any one would scarcely presume to doubt the accuracy of his observation. It seems improbable that a chancre concealed within the urethra should have escaped his notice, or that any other sources of error would not be carefully guarded against; especially at a time when his great personal risk would naturally prompt to double precaution, can it hardly be supposed that any syphilitic lesion would be overlooked.

Moreover, others have not infrequently had occasion to observe the contraction of syphilis where only blennorrhagic discharge was discoverable on the part of the individual who communicated the contagion. A certain number of these cases can undoubtedly be explained, by presuming with Ricord the existence of a *chancre larvé*, and others may be accounted for after the manner of Rollet. Either the infecting party is the bearer of contagious matter from a shortly previous unclean connection, or through an accidental abrasion blood escapes, which, coming in contact with a surface denuded of its epithelium on the parts of the party who is healthy, causes inoculation. There still remain a certain number of cases which cannot easily be accounted for on either of the above hypotheses. To throw light upon these unexplained cases, Tarnowsky performed a series of inoculations with blennorrhagic matter from syphilitic persons, with, in the end, a positive result. The experiments were performed under all possible precautions, any possible contamination of the matter taken, from specific lesions or admixture of blood being carefully avoided; after 18 trials he succeeded in producing in a person so inoculated a well-marked sclerosis, with subsequent syphilis. Presuming the absence of any error in this experiment, the result completely overthrows the positions of Ricord and Rollet, and is abundant proof of the possibility of syphilitic infection from a simple blennorrhagic discharge, where the syphilitic diathesis coexists.

Here we have a satisfactory explanation of Hunter's seemingly anomalous experience. It is, moreover, in full harmony with recent pathological views.

The researches of Waller, Kohnheim, and Recklinhausen have

furnished a new point of departure for pathological study, since the period of Rollet's investigations. The facts elicited by these investigators concerning the migrations of the *wander* cells and the passage of blood corpuscles through their capillary walls afford new data for deduction. Thus, if it be admitted that blood escaping from the vessels by artificial means is capable of conveying the poison of syphilis, *à priori*, we cannot deny this of its elements which migrate to mucous surfaces through natural means. We should, indeed, expect that not only the pus from urethritis but purulent matter from any portion of the body in a syphilitic person, from a simple wound, for example, would alike possess the inoculable contagion; in this connection, however, further investigation is required. Meantime this single successful inoculation of Tarnowsky is significant, for though blennorrhagic pus from the syphilitic does not constantly manifest the syphilitic contagion, on the other hand the blood is well known to possess, at different periods, varying degrees of infectious virulence.

The author discusses the question of the specific nature of gonorrhœa, that is, whether it be a disease *sui generis*, at considerable length, and the opinion is expressed that it is nothing more than a simple inflammation perfectly analogous to the ordinary inflammations of the mucous membrane in other situations. The idea of a specific nature has, until recently, been inseparable from all notions of gonorrhœa, and having always been a presupposed fact, has given rise to much false reasoning and error. The microscope has been vainly interrogated, and all imaginable theories canvassed, only to be again set aside by others. The experiments of Roosbroeck and others have shown that the contagious element is conveyed in the pus corpuscles, and that the violence of the inflammation is generally in direct ratio of their abundance. The purulent secretion of all inflamed mucous membranes possesses, like other irritants, the property of exciting an inflammation in a mucous membrane which is healthy. That anything more than this applies to the special inflammation of gonorrhœa has never been proven.

Were there a specific, fixed contagious principle, of which the gonorrhœal inflammation is the product, then should gon-

orrhœa never occur except from communication with this peculiar material. A spontaneous development is as difficult of conception as of syphilis or variola. But the causes which may excite a urethritis in no way differing from gonorrhœa are as manifold as those of inflammations in other mucous membranes. Moreover, if this fixed poison exists, its effect should be invariably to produce a gonorrhœa when brought in contact with the urethra. Finally, there should at least be something in its pathological course or anatomical changes which would be characteristic of this peculiar process. In regarding such important facts in the etiology as are due to the modifying influence of health, susceptibility, degree of inurement to the special irritating cause, various circumstances attending the copulative act, etc., one must conclude with Fournier: "*L'homme se donne la chaude-pisse plus souvent qu'il ne reçoit.*"

In treating of the pathology of gonorrhœa particular attention is directed to the anatomical pathological changes. Especially in considering the subject of gleet, the various pathological conditions of the urethral mucous membrane are exhaustively expounded. These conditions are ranged under five typical forms in which they commonly manifest themselves. They are stated to be:—

"First—An inflammation of the mucous membrane, limited to the deeper parts of the urethra in various stages of development.

"Second—A localized thickening of the mucous membrane; a hyperplasia of the submucous connective tissue; or, as more seldom occurs, a true hypertrophy of the entire mucous layer with its gland-apparatus and epithelium; a hypertrophy which follows the cell infiltration of the tissue, the latter having been occasioned by successive inflammations.

"Third—A hyperplasia of single portions of the mucous membrane, which manifests itself in the shape of papillary granulations, papillomata, and fungous excrescences.

"Fourth—Obstruction of the excretory ducts of simple and acinous glands, with subsequent formation of cysts or polypi.

"Fifth—In the most rare cases, development of granulations,

in the form of peculiar elevations without vessels, which in their further course occasion atrophy of the mucous membrane, and formation of a cicatrix-like and constantly shrinking tissue."

In addition to these chief types of the chronic urethral inflammation, mention is made of certain exceptional forms. For instance, the anomalous duplicatures of the mucous membrane sometimes foster the rebellious inflammation for a long period within their folds, and the same may be true of abnormal depressions, formed by cicatricial bands; moreover, the urethral mucous membrane is liable to a phlyctenular inflammation. It is apt to occur vicariously with herpetic eruptions on other portions of the body, and occasions a slight form of urethritis of one and a half to two weeks' duration, and often frequently recurring. In connection with these exceptional forms an interesting case is described from a pathological collection in Paris, which the author had occasion to examine. The specimen showed a stricture of the membranous portion of the urethra, with, anterior to it, a hard, granular deposit, which on examination proved to consist of calcareous nodules, embedded in dense connective tissue, and was regarded by Tarnowsky as corresponding to the formations termed by Virchow psammome. "New formations, of this description, in the urethra," observes Tarnowsky, "have, so far as I know, not been described; yet, many have observed in some cases, on exploring the urethra with a bougie, that a sensation of friction anterior to the stricture is perceived, which is produced by the bulb of the instrument rubbing on the encrusted mucous membrane. It is possible that in such cases the calcareous deposit before the stricture, as well as the stricture itself, are due to a urethritis psammomatosa."

In connection with the diagnosis of these various conditions of the mucous membrane, considerable attention is directed to the employance of endoscopic exploration, and this method of examination is urgently advocated as an invaluable auxiliary to the use of the bougie. The chief objections which have been urged against the endoscope are the difficulty of its manipulation and its inability to illuminate the urethra beyond the fossa navicularis, so as to render objects distinctly discernable within its field. In reply to the latter objection, it is claimed



that "any one whose eye is normal can with facility read the finest printed type," if placed within the field of the endoscope, and that from the very construction of the instrument the illumination must be the same at whatever part of the urethra it be adjusted. In answering the other objection, it is admitted that a certain degree of practice is requisite together with some preliminary treatment. The endoscope should never be used until a metallic sound of No. 19 or 20 of Charrière's scale can be passed without irritation. Moreover, certain modifications are recommended of the instrument of Désormeaux commonly used, the chief of which consists in the separation of the illuminating apparatus from the endoscopic tube. By this means much of the severe pain occasioned by the unavoidable movements during the act of adjusting the two parts is avoided. It is also advised that a chair with movable back be employed, so that as the tube passes beneath the symphysis pubis, instead of sinking its free end between the patient's thighs, the body is gradually elevated to the sitting posture. The method of examination is described with much minuteness, and then follows a detailed description of the various appearances which the endoscopic examination reveals, and this is illustrated with a number of fine colored plates.

With regard to the treatment of gonorrhœa, little that is new is proposed. The so-called abortive cure is discouraged. It is admitted that, of ten cases thus treated, four or five would be healed in fifteen to sixteen days; but the unpleasant circumstances accompanying the remaining failures more than counterbalance the partial success.

Preliminary to the treatment of chronic gonorrhœa, much stress is laid on the importance of ascertaining precisely the seat of trouble. So soon as the examination has proved the inflammation to exist in the membranous portion, injections with the ordinary syringes are useless. A catheter should be introduced, and through this the gradually strengthened injections must be applied directly to the affected part; or the instrument devised by Guyon is employed, by which means the applications can be made simultaneously with the exploration, and limited almost exclusively to the portion which is diseased. Should

this treatment prove unsuccessful, the patient is prepared for the use of the endoscope, and the exact condition of the mucous membrane ascertained. Should papillary granulations be found, they are to be touched with a strong solution of the nitrate of silver (grs. xx. ad. ℥ i.), which is applied directly through the tube of the endoscope with a bit of cotton on the end of the stylet. In case granulation-tissue proper is found, systematic introduction of bougies will usually suffice to cause its disappearance; but if the granulations persist, they are touched with the pure stick of silver, or better, with a crystal of sulphate of copper carried through the endoscopic tube, affixed to a metallic rod. At the best, however, it is admitted that the treatment of granulations in this situation is apt to be no less tedious than it is when they attack the eye in the form of granular lids.

For the successive attacks of phlyctenular inflammation a weak solution of iodine in glycerine is recommended to be applied locally. In addition to this, long-continued "*sitz-bäder*" in cold water are advised.

The complications of gonorrhœa are treated of in four lectures. In connection with the affections of the *lacunæ Morgagnii* of the spongy and cavernous bodies, particular attention is called to the distinction between swellings along the course of the urethra, occasioned by the obstruction of glandular orifices and true phlegmonous abscesses. A hasty incision in the former case would usually give rise to troublesome urinary fistulæ, the sudden collapse of the tense walls permitting the constricted duct to become again patulous. Some time is passed in considering the condition produced by protracted contraction of the neck of the bladder, or so-called spasmodic stricture.

Several accidents sometimes accompanying the course of a gonorrhœa, and usually described as complications, are excluded from the enumeration. For instance, the condition known as gonorrhœal rheumatism is denied having any pathological relation to gonorrhœa, and is regarded, in the few instances where it occurs, as an entirely fortuitous coincidence. A lecture on gonorrhœa in women, and one of concluding remarks, complete the course.

EDWARD B. BRONSON, M.D.

## Selections from Foreign Journals.

### ABSTRACT OF THE GOULSTONIAN LECTURES ON ELEPHANTIASIS GRÆCORUM.\*

By ROBERT LIVEING, M.D.,

*Physician to the Middlesex Hospital, etc.*

#### LECTURE I.

ELEPHANTIASIS Græcorum, or true leprosy, is a disease that has existed from pre-historic times down to the present day, and has been aptly described by a traveller of the seventeenth century as a "distemper so noisome, that it might well pass for the utmost corruption of the human body on this side the grave."

Leprosy may be briefly defined as an incurable constitutional disease of young adult life, which is especially prevalent in tropical and sub-tropical countries. It is met with in three principal forms. First, macular leprosy, characterized by an eruption on the skin, accompanied by anæsthesia; secondly, anæsthetic leprosy, of which the chief features are, anæsthesia and discolorations of the skin, and atrophy of the muscles, with ulceration and mutilation of the hands and feet. The third form, or tuberculated leprosy, is constitutionally the most severe, and is characterized by a bronzing and tuberculated thickening of the skin, especially of the face, ears, hands and feet, followed by similar changes in the mucous membranes of the upper part of the alimentary and respiratory tracts, ending fatally in from two to fifteen years, by intercurrent disease in some vital organ.

It is to this disease that I have the honor to direct your attention in the present course of lectures. In dealing with this subject, which is very extensive, I find that it is impossible to do more than to give a slight sketch of the history, geographical distribution, etiology, and pathology of leprosy.

The present lecture will be chiefly devoted to an account of the history of the disease in Europe, during the Middle Ages, with a very brief notice of Jewish leprosy.

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\* Delivered at the Royal College of Physicians, 1873.

In the second lecture, I shall discuss the geographical distribution of the disease at the present day, in particular countries, with reference especially to the external circumstances of climate, soil, and the occupations of the inhabitants of those countries or districts, and other points connected with the etiology of the disease.

In the third lecture, I propose to give a sketch of the clinical features and morbid anatomy of the malady.

The nomenclature of leprosy or elephantiasis, and the confusion of names which arose from combining the Arabian and Greek literature, has often been explained; I shall therefore touch upon it but very slightly.

Hippocrates and the old Greek writers employed the name *lepra* (λεπράι) to designate patches on the skin covered with white rough scales, exactly corresponding to our psoriasis. True leprosy was at that time unknown in Greece, and therefore it did not attract much attention; it was to the early Greek writers only a matter of hearsay.

In the time of Aretæus, however, leprosy had appeared in South-Eastern Europe, and was accurately described by him as a disease with which he was personally well acquainted under the name of *leontiasis*. Lucretius and Celsus use the term *elephantiasis* to designate the same disease; and the latter introduces it in the following terms: "Ignotus autem pene in Italiâ, frequentissimus in quibusdam regionibus is morbus est, quem *ἐλεφαντίασιον* Græci vocant." Thus we have the terms, *lepra græcorum*, signifying our psoriasis, and *elephantiasis*, or *leontiasis græcorum*, signifying true leprosy; so far all was clear. But unfortunately the Latin translators of the Arabian writers used also the word *elephantiasis* for "Dal-fil, or elephant leg," a disease which was evidently our Barbadoes leg, and was probably unknown to the Greeks. Hence, we have *elephantiasis* applied to two distinct diseases, which we are obliged to distinguish from each other, by the names *elephantiasis Græcorum*, and *elephantiasis Arabum*. Again, the same translators employed the term *lepra*, not in the sense in which it was used by the Greeks (*i. e.*, psoriasis), but to designate true leprosy. In this sense it is also used in the Septuagint.

Constantinus Africanus, in the eleventh century, appears to have introduced a modified form of the Arabian teaching into the school at Salerno; and the authors of that school, to satisfy the theory of the four juices, divide true leprosy into four varieties: *elephantiasis*, *leonina*, *alopecia*, and *tyria*. With them *lepra* is the general term for a disease, of which *elephantiasis* is only one particular form.

We can understand, then, how, in the fourteenth century, when the old Greek and Latin authors were reintroduced, great confusion arose in consequence of the same names being applied to very different diseases, and this confusion has hardly disappeared even in the present day.

To state the matter in a concise form, we have—

1. Elephantiasis Græcorum, equivalent to *lepra Arabum*, or true leprosy.

2. Elephantiasis Arabum, or the Barbadoes leg, unknown to the early Greeks.

3. *Lepra Græcorum*, answering to our psoriasis.

*Leprosy of the Jews.*—Whoever reads carefully the account of leprosy (*zaraath*) given in Leviticus, must arrive at the conclusion that several distinct diseases are included under one and the same name. One reason for this belief, which is alone almost conclusive, is that the recovery of some of those afflicted with leprosy is evidently assumed as a possible, if not a likely occurrence; and provision is made for their readmission into the camp. Now, if there is one thing certain about leprosy in the present day, it is its incurability; indeed, we should look upon any curable malady as essentially distinct from leprosy; once a leper, always a leper, is painfully true. It is highly probable, however, that true leprosy, together with many other diseases of the skin, such as eczema, psoriasis, scabies, and possibly syphilis, existed among the Jews, but they were not distinguished from each other in the early stages of development. Those who are acquainted with the insidious way in which leprosy sometimes begins, will not be surprised that the Jewish priests should have had some difficulty in making a correct diagnosis. The error of our translators has evidently been that of rendering the *generic* term *zaraath* by a *specific* name leprosy. Whatever diseases were included under this term (*zaraath*) it is quite evident that some at least were believed to be contagious, and that the exclusion of the leper was not, as has been often stated, simply a religious rite. This is indicated by the directions to burn the clothes supposed to be infected, and by the repeated washings and shavings of the head, beard, and even eyebrows of the cured leper. His being required to sleep in the open air, instead of in his tent, for seven days after he was pronounced clean, points also to the fact that practical rules were mixed up with religious observances, which is in perfect harmony with the double capacity in which the Jewish priests acted.

It is not my purpose to enter into an antiquarian account of leprosy during the Middle Ages. A complete history of

the kind, though very interesting, would be far beyond the scope of these lectures. In dealing, therefore, with this part of the subject, I shall confine my observations to those historical facts which appear to have some bearing on the origin, prevalence and final subsidence of the disease in Europe.

I shall refer, briefly, to the supposed causes of its rapid increase, and to the vigorous and systematic attempts which were made to stamp it out, by the complete exclusion of lepers from legal rights and social intercourse with the rest of mankind. And I shall endeavor to show that erroneous views have been entertained by many historians with reference to the origin of the disease in Europe, and also with regard to the effect of exclusion as a means of exterminating it.

The method adopted had no doubt an effect, not, as has been supposed, by preventing contagion, but by destroying the race of lepers. It exposed them to many hardships, it deprived them of their rights, and precluded them by oath from propagating their species. Even amongst the wealthy and powerful, who were less under the tyranny of the priests, the horror with which the disease was regarded, and its known hereditary tendency, had a marked effect in checking marriages.

History records the fact that leper-hospitals existed in Palestine at a very early period of the Christian era. In the seventh century, the merchants of Amalfi had already established at Jerusalem the Hospital of St. John, where they maintained certain persons, afterwards called the Johannites, to attend upon the sick.

A little later, the remarkable society of the Knights of St. Lazarus was founded, in order that lepers among the higher classes might not be deprived of their knightly honors and fame. These knights were employed in superintending the leper-hospitals, and providing for the wants of the inmates. They not only admitted leprous persons into their order, but during the early period of their history they were bound to elect a leper as grand master. This rule was, however, revoked at a later date, by Pope Innocent IV., and the Lazarites gradually ceased to fulfil the functions for which they were originally celebrated.

St. Louis brought twelve of these knights into France, for the express purpose of instructing others in the management of the leper-hospitals of that kingdom.

The introduction of leprosy into Western Europe has often been attributed to the Crusades. The disease, however, was

known in Spain, Germany, France, and even in England long before that time. Both Pepin and Charles the Great made laws regarding it; and the former in 757 (at Compiègne), enacted that the appearance of the malady in either husband or wife was a sufficient cause for divorce.

Again, several leper-houses were founded before the first English crusade, in the reign of William the Conqueror, two in the neighborhood of Canterbury, and one in Northampton.

The circumstances which have led most of our own historians to erroneous conclusions with regard to the introduction of leprosy into Europe, are easy to understand.

In the first place, there can be no doubt that the disease increased rapidly about the time of the Crusades; and to those who looked upon it as contagious, nothing would appear more natural than that it should have been imported from the East.

Secondly, a great stimulus was given by the Crusaders to the foundation of hospitals. In Palestine they had seen old-established leper-houses in good order and constant use; they therefore favored the introduction of a similar plan of dealing with lepers in Europe.

Thirdly, distinguished physicians of the West began to give their attention to the subject, so that the history and nature of the malady became far more widely known than at any former period.

These three circumstances mainly contributed to foster the belief that the disease which had thus suddenly come into prominence had been newly imported.

During the twelfth and thirteenth centuries, leprosy increased to a terrible extent throughout Europe, and especially in England, Italy and France. Velley, in his history of the latter country, says that Louis VIII. promulgated a code of laws, in 1226, for the regulation of leper-hospitals in France, and that the number of these hospitals was computed at that time to be not fewer than two thousand. At a later period the number had increased, so that there was scarcely a town in the country unprovided with a leper-house. The late Sir J. Simpson has collected records from the *Monasticon Anglicanum*, and other sources, of no fewer than ninety-five of these religious hospitals for lepers, besides innumerable smaller pest-houses, nearly all of which were founded in Great Britain during the thirteenth, fourteenth, and fifteenth centuries. In addition to these, there were at least fourteen houses of the first order in Ireland. The total number of similar institutions in Europe was estimated by Matthew Paris at nineteen thousand.

I have prepared a map, which indicates the position of the chief leper-asylums in the British Isles. A glance at it will show that they were very unequally distributed, the majority being found in the East and South Coast counties, and in the towns on some of the larger rivers, such as the Thames, the Severn, and the Ouse.

Norfolk was especially a home for lepers, for no fewer than seventeen hospitals of the first order existed within that county. Five of these were at Lynn, and six at Norwich. In Kent there were at least nine, and in Suffolk seven.

At first sight, it would seem as if the distribution of the leper-houses would be a fair indication of the relative prevalence of the disease in different parts of the kingdom; but further investigation makes us pause before accepting this conclusion, for the foundation of so many hospitals might be equally accounted for by the fact that the South and East coasts of England, being the parts of the island nearest the Continent, were the districts most thickly populated, and contained the chief centres of civilization. The same remarks apply to the towns situated on large and navigable rivers.

*Treatment of Lepers in the Middle Ages.*—We find that in France, in the thirteenth and fourteenth centuries, the greatest care was taken to prevent, on the one hand, lepers from remaining in social intercourse with the unaffected, and on the other, to guard those in whom there was no evidence of leprosy from being erroneously condemned to exile from society. No doubt lepers were often concealed for a time by their relations and friends, in spite of the almost universal belief in contagion, and the acknowledged danger of such a proceeding.

In a case of suspected leprosy, the medical examination was conducted with the utmost formality and care, and often occupied several days. Special rules were laid down for the systematic investigation of doubtful cases, and even where no doubt could have existed in the mind of the examiner, the same routine seems to have been generally followed. Kind and considerate treatment of the unfortunate lepers was strongly inculcated, and consolations were freely given; by some, indeed, they were looked upon almost as martyrs, and were treated with far more kindness and compassion than they now meet with in Eastern, or even in some European countries.

The exclusion of lepers from society was considered by all a high moral duty, simply because the disease was believed to be dreadfully infectious. The examination of the supposed leper was conducted, as I have said, with much formality. He was first sworn to speak the truth, and to answer fully all questions



put to him. The investigation then began with an inquiry into his previous history, respecting any family taint, or other predisposing cause; whether he had held communication with lepers, or had been otherwise exposed to contagion. Next, an examination was made of the color, sensibility, and general aspect of the face; the skin was pricked, to ascertain if the sense of feeling was perfect.

The physician was especially directed to determine whether the eyebrows were thickened, or had lost their hair; whether the nose was enlarged or ulcerated, the voice harsh, the breath foetid, and the features changed or frightful. Then the patient was to be stripped to the skin, and the whole body examined for dark spots, thickening or irregularity about the joints, and wasting or numbness of the limbs. Water was poured over the body to determine whether it was unusually greasy, an oily skin being one symptom of the disease. The urine and blood were to be tested. The examination of the latter was justly regarded by some of the eminent physicians of that day as of little value. Bernhard Gordon, Professor of Medicine at Montpellier, says (in his *Lilium Medicinæ*), "The blood, when drawn and washed, contains black, earthy, rough, sandy matters, and other marks, which authors prominently mention; but for me, those suffice which are to be found in the face." The mode of testing the urine, as described by Lemnius, consisted in throwing into the water of the suspected person the ash of burnt lead (litharge?); if this sank to the bottom, the individual was in good health, but if the material floated on the top, he was infected with leprosy. A rough way, no doubt, of testing the specific gravity of the fluid.

Lastly, the physician was particularly cautioned not to arrive at a hasty conclusion, but to ponder over all the features of the case before giving a verdict which might condemn a healthy man to perpetual banishment in a colony of lepers.

In doubtful, or recent cases, the suspected leper was never at once consigned to the hospital, but simply confined to his own house, and tended by the physician, but was not allowed to associate with the healthy; and, amongst the wealthy and influential, here the proceedings often ended. Not so with the poorer classes. As soon as the signs of the disease had developed, the leper was given over to the ecclesiastical authorities. But if, on the other hand, the physician pronounced him sound, he was supplied with a medical certificate to that effect, and allowed to go free.

When the condemned man was handed over to the priests, certain religious ceremonies were performed to celebrate and

legalize his removal from the outer world to the abode of lepers. He was sprinkled with holy water, a mass for the dead was said over him, a handful of earth was thrown upon him in token of burial, and he was then transferred from the church to the hospital. On admission, each leper was provided with a special dress, and a rattle or pair of clappers, without which he was on no account allowed to leave the house. By the dress he was at once recognized, while the clappers served to give timely warning of his approach. The dread of contagion was so great, that lepers were strictly forbidden to enter inns, churches, mills or bake-houses; to touch or eat with healthy persons; to wash in the common springs or streams; or even to walk in narrow foot-paths. They were allowed to enter the towns on certain days only, and to touch with a stick what they wished to buy. If they met any one on the road, they were obliged to hurry away from him, or so place themselves that the wind should not carry their exhalations towards the healthy. In short, the dread of infection led people into many absurd practices, some of which were continued down to the seventeenth century. Evelyn mentions that, while on a journey to the Hague, in the summer of 1641, he "observed divers leprous, poor creatures, dwelling in solitary huts on the brink of the water, and permitted to ask the charity of the passengers, which is conveyed to them in a floating box that they cast out."

I have dwelt somewhat at length on the belief that existed in the Middle Ages in the infectious character of leprosy, because it was at the root of all the laws and regulations affecting lepers; and also because it explains why, for so many centuries, they were so carefully shunned by all except those who desired to perform some signal act of penance or piety.

Volz considers that leprosy in the Middle Ages was by no means so contagious as might be inferred from the severity of the seclusion practised; but that this may be rather attributed to the custom of the age, when those who were of the same class in social status, culture, necessities and distresses, often united to form themselves into a society or brotherhood, which was kept together by a religious bond. The isolation from the rest of the world, which hundreds of thousands practised voluntarily, was required as a duty from the lepers, who retired to the leper-house, where they usually led an indolent life, supported by the alms of the charitable, or at the cost of the foundation. The spirit of the time, also, often endowed them with a certain odor of sanctity, and set a martyr's crown on their heads.

Lepers being excluded from the orders of knighthood and from monasteries, had hospitals appropriated to them; so that,

though their disease deprived them of the honors and privileges which the world and the Church valued, they might yet retain the benefits arising from a religious life.

In England and Scotland, the laws and customs in force with regard to lepers were very similar to those I have described as obtaining in France; the chief difference, as far as I can learn, being the very partial development of the religious ceremonial in our own country. The matter was left more in the hands of the magistrates and doctors, but the result, as far as it affected the leper, was the same in all—viz., his complete exclusion from society, the special dress, the cap and clapper, with all other provisions to prevent, if possible, the spread of the disease. In some establishments, the rules were very stringent. Dr. Shapter, in his account of the leper-hospital at Exeter, says that one rule provided that “no brother or sister shall go or pass out of the house beyond the bridge without the gate of the said hospital, without the license of the warden or his deputy, upon pain to be put into the stocks, and have but bread and water for one day.”

At Edinburgh, the penalty for breaking the rules of the house was far more severe, being nothing short of death; and Arnott, in his history of that city, tells us that a gallows was erected near the hospital for the immediate execution of offenders.

John Stow, in his *Survey of the Cities of London and Westminster* (1720), mentions a record of Edward III., that the king, in 1346, sent “a commandment under his Great Seal to the Mayor and Sheriffs of London, willing them to make proclamation in every ward in the city and suburbs, that all leproous persons within the said city and suburb should avoid within fifteen days, and that no man suffer any such leproous person to abide within his house, upon pain to forfeit his said house and to incur the king’s further displeasure. And that they should cause the said lepers to be removed into some places of the fields, from the haunt and company of all sound people.”

At a later period, however, considerable relaxation of the old laws regarding lepers was tolerated, till the time arrived when leper-houses were totally abolished. Nevertheless, dread of contagion, and the strict exclusion of lepers from intercourse with the rest of mankind, existed scarcely more than a century ago in some parts of Scotland and the Shetland Isles, where the custom long prevailed of exporting all lepers to the Island of Papastour; and in 1737 (according to Sir James Simpson), Mr. Fiskien, a minister in Papa, thus writes to Sir John Pringle: “This disease (speaking of leprosy) is found by experiment to

be very infectious, and seems also to run in blood, most persons that have taken it without infection from another, having been related to three families in the island. It affects any age or sex; and it is observed that young persons bear it longer than those of more advanced age, some having lived ten years under it, others only two, some four, some six, etc., but none ever recover after the symptoms do appear. The persons that fall into this direful case are, as soon as it is observed, obliged to retire to a solitary little hut, built on purpose for them, at a distance from all houses, and are not allowed any converse with their husbands, wives, or nearest relatives, but have their necessities of life furnished for them by a contribution from all the inhabitants of the isle, and brought to their hut, which they take in when the person who brought it has retired to the windward of their house, at some distance."

I shall digress for a moment to point out that the very stringent laws of the Middle Ages closely resemble those now in force in China. A recent report from that country by Dr. Hobson states that lepers are so effectually excluded from society, through the fear of their infecting the healthy, that they are as among the dead. This separation is so complete, and its consequences are so much dreaded, that persons becoming leprous are known, very frequently, to terminate their lives, by opium, or by hanging or drowning themselves. The Chinese never permit marriage with the progeny of leprous parents; its appearance in a family not supposed to have any hereditary predisposition puts an effectual stop to all matrimonial engagements. Lepers themselves only intermarry with those of the same grade or type of disease; for example, a leper of the fourth generation, with no external appearance, but known to be of leprous origin, will only marry a woman who is in the same circumstances herself. Their progeny is considered free from taint, and need no longer be excluded from society.

It must not be supposed that the leper-houses of the Middle Ages were hospitals under medical supervision for the treatment and cure of patients. The more celebrated ones were endowed religious asylums, and entirely under civil or ecclesiastical, but not medical control. The smaller establishments were nothing more than wretched abodes, which just sufficed to shelter a few miserable creatures, who lived from hand to mouth, and depended for their subsistence on the charity of their neighbors. In England and Scotland, the flesh of diseased animals, which could not be sold in the public market, was often sent to the leper-house outside the town for the use of the patients. Under these circumstances, we are not surprised to learn that cures were never effected except by miraculous agency.

Although hospitals were founded with the primary object of suppressing leprosy and preventing contagion, yet it can hardly be doubted that there remained in the minds of many a remnant of the old Jewish superstition, that the disease was religiously as well as physically unclean; in other words, that it was a special Divine judgment on individuals, and that, therefore, a life of seclusion and penance was the one most suited to their condition. And this explains the fact that greater care was bestowed on the spiritual than on the temporal wants of the sufferers, many of whom would gladly have bartered the future benefits attached to their religious exercises for a present supply of wholesome food.

*Decline of Leprosy.*—It is not easy to determine the exact time when leprosy reached its zenith in Europe. It did not arrive at its maximum of development in all countries at the same time. For instance, it appeared in Scotland long after it was known in England, and was declining in the latter country before any sign of abatement was observable in the north. As far as we can judge, the disease appears to have been most prevalent in France and England at the end of the thirteenth century, and in Germany somewhat later.

The greatest number of leper-hospitals was founded in England in the twelfth century, while the thirteenth provided almost as many, but after that period very few were added. The last one of any note was founded at Highgate in 1472 (just four centuries ago), but long before that time many of the old leper-houses had fallen into disuse, and their revenues into the hands of the priests.

Matthew Paris mentions that in the middle of the fourteenth century the number of lepers at St. Alban's had greatly diminished; for in the preface to the statutes of that leper-house, published in 1350, it is stated that the number of lepers that presented themselves for admission had diminished so much by that time, that their expense of maintenance was below the revenue of the institution; "in general," it is added, "there are now not above three, sometimes only two, and occasionally only one."

The hospital of St. Mary Magdalene, at Ripon, was established in 1139, for the relief of all lepers in that district. In the time of Henry VIII., it contained only two priests and five poor people to pray for all "Christen sowlez."

At Illeford, in Essex, a hospital was instituted in the reign of Henry II. for thirteen lepers. In one of the reports of commissioners for suppressing colleges, hospitals, etc., in the time of Edward VI., it is observed, in regard to the state of this Illeford Hospital, that, though founded "to find thirteen poor men,

being lepers, two priests, and one clerk, thereof there is at this day but one priest and two poor men."

We find from these and other accounts that, in the latter part of the fourteenth century, leprosy was rapidly disappearing in England. It lingered on, however, in some parts of Scotland and the Shetland Isles till the middle of the eighteenth century, but then, with the exception of a few isolated cases, it finally departed. In 1742 a day of public joy and thanksgiving was appointed in Papa for the total disappearance of this plague.

On the continent, Philip Gabriel Hensler has clearly demonstrated that towards the end of the fifteenth century scarcely a trace of the so-called "knotty leprosy" could be found; a milder form, however, known to the authors of the time as "scabby leprosy," was still common in some countries, especially in Germany and Holland. In the first half of the sixteenth century, Francis I. of France ordered that the privileges of the leper-houses should be revised, and the number of true lepers determined. This led to a redistribution of the funds, which were found to be too large for the requirements of the few remaining lepers. About a century later, leper-houses were finally abolished by Louis XIV., and their property given to the Carmelites, one hospital alone being retained for its original purpose. Thus, we may safely conclude that the disease had quite disappeared from the chief countries of Western Europe by the end of the seventeenth century.

The history of elephantiasis in the Faroe Islands supplies us with an interesting link between the past and present, between the disease of the Middle Ages and that of our own day; it carries us on from the time that it was dying out in Europe to the beginning of the present century, and proves, if proof were wanting, the identity of the disease in both ages.

In the latter half of the seventeenth century, when leprosy was extinct in France and England, it was very prevalent in the Faroe Islands, as we learn from the writings of the Rev. L. J. Debes, a translation of which was published in 1676. From the time that account was written, about two hundred years ago, up to the beginning of the present century, the disease existed in those islands. The reason of its final disappearance has been attributed by Dr. Hjort to hygienic causes. He says:—"We learn from the Faroe Islands that the disease has there diminished, and is now almost unknown, since the great sea-fishings were relinquished, and more attention has been paid to agricultural pursuits."

The history of leprosy in the Middle Ages suggests the following points for consideration:—1. How did the disease be-

come common in Europe? 2. Was there any ground for the almost universal opinion that it spread by contagion? 3. Did the mode of life of that period influence its progress? 4. Did the isolation of lepers tend to its rapid decrease in the fifteenth and sixteenth centuries, and to its almost complete extinction in the seventeenth century?

With regard to the first question, the broad fact is evident, that the disease, though present in Europe long before it became common, yet received in the twelfth century a sudden accession of strength, and swept like a wave across the continent from south to north; and that in the main it subsided in the same order, first in Italy and the greater part of Spain, then in France, England, and part of Germany, thirdly in Scotland, Holland, and Denmark, and lastly in Sweden and the Shetland and Faroe Islands. In its retreat, it left behind foci of disease wherever circumstances favored its permanent development. There was, in short, an *epidemic* accession to a disease that was already more or less *endemic*. In affirming that leprosy was epidemic in Europe during the Middle Ages, I am well aware that it only amounts to stating the fact that we do not know the true cause which produced this remarkable feature in the history of the disease. It is better, however, to acknowledge this, than to bolster up erroneous theories as to its mode of propagation.

Secondly, the question of contagion as a propagating cause of leprosy in the Middle Ages, is one of difficulty. The universality of the belief in its infectious character is no proof that the belief was well founded, for *every* epidemic disease was in those days regarded as contagious. Now, we know that leprosy is not so in Europe in the present day, at least, not in any appreciable degree; has it then, we may ask, changed its nature during the last two centuries? While, therefore, I cannot admit that there is much evidence of the spread of leprosy by contagion, I fully agree with those who hold that many Europeans acquired it in the East during the Crusades, and thus brought into Europe a constant supply of new cases. Admitting the disease to be hereditary, the effect of this in a few generations would be obvious. Hirsch remarks that—"At a time when syphilis was not recognized as a specific disease, either in its primary, secondary, or tertiary form, it was often taken for leprosy, and to that mistake is to be ascribed, in some measure, the popular and professional idea of the contagiousness of leprosy. In the seventeenth and eighteenth centuries the belief in this theory began to disappear, and scarcely one modern observer holds it."

Thirdly, with reference to the effect of the mode of life and diet in use during the Middle Ages, little reliable information can be obtained from the writers of those times. Even amongst the best educated and most enlightened of observers, absurd notions prevailed as to the causes of diseases in general, and of leprosy in particular. Stow, for example, mentions that the smoke of coals was looked upon as a noted source of disease, and their use was at one time actually prohibited in London and Southwark. Some held that leprosy was produced by an excess of animal food, while others believed that a vegetable diet had the chief share in its production. The combination, however, of milk and fish, seems to have been considered especially unfavorable to the disease. In short, there was scarcely any kind of food that was not condemned by one writer or another, so that if their united directions had been followed, the progress of leprosy would have been effectually forestalled by death from starvation.

Lastly, with regard to the isolation of lepers, I have already hinted that it tended to prevent marriages with those infected, and thus, to a certain extent, checked the spread of the disease; or rather, I should say, that when the epidemic character of leprosy was subsiding, this, among many other secondary causes, assisted in its final extermination.

## LECTURE II.

The lecturer first gave a very full account of the geographical distribution of leprosy in the present day—especially with reference to the habits and customs of those races who suffer from its ravages; and noticed also any peculiarities of climate, soil, and food, which would be likely to affect the progress of the disease. He then proceeded to the consideration of the *Etiology of Leprosy*.

In discussing the etiology of diseases, we usually divide the causes which produce them into two classes—(1) primary, and (2) secondary. Thus, for example, in scurvy (a disease somewhat allied to leprosy), we know the *primary* cause to be a deficient supply of fresh food and vegetables; and the *secondary*, exposure to wet, cold, and other hardships. In the case of leprosy, however, we are quite ignorant of its primary source; and, therefore, in dealing with the subject, I can only discuss its secondary and predisposing causes, of which the seven following are the chief: (1) Climate, (2) Soil, (3) Race, (4) Defective Hygiene, (5) Diet, (6) Hereditary Tendency, (7) Contagion. These seven factors differ much in their relative im-



portance ; some exercise but little influence in the propagation and perpetuation of the disease, while others are of great moment.

1. *Climate*.—It will be gathered from what I have said in the geographical sketch of leprosy, that I do not attach much value to climate as a cause of the malady. I have already proved that the disease exists in all latitudes, from the Poles to the Equator: nevertheless, I believe that the importance of climate has been rather under than over estimated, especially by the modern German writers, who attempt to determine its effect by comparing one country or district with another ; and they argue that, as the disease is equally common, say in Norway, South Africa, and the West Indies, therefore atmospheric influences are inoperative. I need scarcely point out that there is a possible fallacy in this argument, inasmuch as, by thus comparing one country with another, they really include several factors—viz., soil, race, food, etc., any of which may exert an influence over the disease. To separate these, and assign to each its proper value, is the difficulty. In order to judge of the effects of climate, much larger tracts of country—such as include many different soils and races—must be compared, though even then the sources of error are only partially eliminated. A glance at the map which I have marked shows us that leprosy is vastly more common between the tropics than in the temperate zones. Here is a broad fact which cannot be denied ; and the most probable explanation of it is, that tropical climates exercise an unfavorable influence by promoting the development of the disease.

2. *The Conditions of Soil* have always been regarded as exercising an important bearing on leprosy. By the earliest observers, the moist banks of the Nile were considered to stand in a causal relation to it. Both mediæval and modern observers have recognized that, although leprosy is diffused over a large part of the earth's surface, it prevails most along the marshy banks of rivers and on flat sea-boards. This fact is in the main borne out in the geographical sketch I have given of its distribution. In Europe, for example, it is met with almost exclusively in islands, along the coast, or in the neighborhood of large rivers or inland seas. In Africa it is notoriously prevalent in similar districts. In China, which may be considered as a hot-bed of leprosy, it is along the coast-line and low marshy plains of the south that the disease is especially rife. India forms an apparent exception to the general rule, as leprosy is distributed throughout the length and breadth of the land ; but even here it is more common near the sea-coast. It cannot,

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however, be denied, that many regions in the western hemisphere which do not possess a moist or marshy soil are visited by the disease, nor is it confined to a low-lying coast district. The highlands of Mexico and Costa Rica, and the mountainous regions of Brazil, afford us striking examples in point. Writing of Leprosy in Madagascar, Dr. Davison says it exists equally "in town and country, at an elevation of 7,000 feet above the sea-level, along the coast-line, and through all intermediate elevations." It is not, in fact, the elevation above the sea, or the distance from its shores, which is in any way antagonistic to the disease, but the development of agriculture and the artificial drainage of the soil which is generally to be found in inland districts. In support of this view I may cite the following examples: Sweden, Iceland, the Faroe Islands, the Canaries, the Mauritius, and many parts of India, in all of which leprosy has diminished or disappeared coincidentally with improved drainage and cultivation. It may be objected that, when the disease was prevalent in Europe, it was independent of any conditions of soil. This may or may not be true; it is, however, certain that, when the disease was at its height during the Middle Ages, its virulence was so great that telluric influences were entirely subordinated; but on the subsidence of the plague, from unexplained causes, its continuance in certain localities was insured by such agencies as peculiarities of soil and other minor causes. Secondary or subordinate causes may convert an epidemic into an endemic disease, and are most apparent when the chief or specific cause has become inoperative.

3. By many it is denied that *Race, per se*, has any influence whatever on leprosy. At first sight there appears good foundation for this conclusion, inasmuch as all races are amenable to its attacks; but the question is, are they all equally so? Many examples may be cited which lead us to pause before arriving at a positive conclusion. In India, for instance, all agree that the Jews and Europeans are less frequently attacked than the natives; but obviously this may be due to other causes than that of race. At the Cape, the Hottentots suffer more than the Negroes, and the latter far more than the native tribes. Here the comparison is less open to objection, the external circumstances of the Hottentots and Negroes being identical. The Arab races have a special immunity from the disease in Algeria, Egypt, and the Malay Archipelago. This is the most remarkable fact of the kind with which I am acquainted. It would, however, be unwise to draw any conclusions from it; for special occupations, mode of life, and diet, are so intimately connected

with particular races, that it is impossible to separate the one factor from the other, or to determine whether race alone has any effect whatever on the propagation of the disease.

4. *Hygiene*.—It would be unreasonable to suppose that offences against public and private hygiene are entirely without influence on such a disease as leprosy. Want of personal cleanliness, a filthy and defective condition of clothing, and wretched damp dwellings, are under no circumstances conducive to health; but whether they exert any special action on this disease more than on many others, may be fairly doubted. In the Middle Ages, we know that princes, prelates, and crowned heads were subject to it; and in modern times, though it is undoubtedly more common amongst the poor and dirty in all countries where it is endemic, yet it is by no means confined to these classes. Sometimes it capriciously spares certain portions of a country where the condition of the population is identical with that of those attacked. In Spain, it is common in Galicia, which is the least prosperous part of the country; but it prevails also in Catalonia, the richest province. In the reports returned by medical observers in different parts of the world, we find an almost unanimous opinion expressed, that exposure to hardships, residence in foul dwellings, and neglect of personal cleanliness, serve to aggravate the disease and accelerate its progress, and that the opposite conditions have the reverse effect. No one, however, supposes that these circumstances alone would ever originate the malady.

5. *Diet*.—It is remarkable that at a very early period in the history of elephantiasis, the effect of food in promoting the disease was noticed. Galen says that it was common in Alexandria among those who fed on pulse, lentils, shell-fish, and many kinds of salted foods; and Arab testimony is not wanting to the same effect. That excellent observer, White, of Selborne, writing just a century ago, attributes the disappearance of the disease from England mainly to improved agriculture, and an abundant supply of fresh food and vegetables. In the present day, Danielssen and Boeck, together with several other Norwegian observers, have strongly insisted on the importance of diet as an agent in the production of leprosy. Speaking of the maritime population in the western district, Dr. Danielssen remarks on the prevalence of fish, especially herrings, in a partially decomposed state, as an article of food. He says: "Herrings are generally used in a salted state; rarely, if ever, are they eaten fresh. The peasant of the western coast is so little delicate about this article of food, which forms so large a proportion of his daily sustenance, that

he often devours it in a putrid state. When the herring fishery happens to be in places where assistance is not at hand, as is often the case in North Bergen, a large number of herrings are thrown on shore and left for many days waiting for purchasers. Should these not appear, the peasant appropriates the fish to his own use, and, adding a small quantity of salt to the half-rotten herrings, he conveys them home. After the lapse of some weeks, these herrings are in a manner pickled—that is to say, they are in a state of decomposition, and then they become the daily food of the whole family. Each week, until they are consumed, they become more and more decayed; but, nevertheless, the nauseous food is eaten, till not a herring is left; nay, so constant is this hateful custom among the peasantry, that they will not touch fresh fish, but prefer to leave it for some days till incipient decay gives a zest to their coarse palates.” The truth of the latter part of this statement I can fully bear out from my own observations. If disgusting and half-rotten animal food has any influence whatever on the development of leprosy, the west coast of Norway is of all countries the most favorably circumstanced for its production. On the coast of Catalonia, where leprosy is not uncommon, the chief food of the inhabitants is salted fish. Again, with regard to the Lafões in Portugal, Baptiste remarks that the inhabitants live on dried fish, sardines, bad bread, and fat pork, and that the fish, especially the sardines, are eaten in a half-rotten condition; and he attributes the presence of the disease to this peculiarity in the diet of the inhabitants. In my account of the geographical distribution of leprosy, it will be remembered that I have frequently referred to the above-mentioned kind of diet as very generally prevailing in leprosy countries—not only in Europe, but in all quarters of the globe; but I have also drawn attention to the fact that there are many districts where a fish diet is quite unknown—such, for example, as in some inland parts of Northern India and of Persia, as well as in the highlands of Costa Rica, where the disease prevails, though fish is seldom or never eaten.

On the subject of diet, Mr. Jonathan Hutchinson remarks, that “all localities which either are now, or ever were, noted as the homes of leprosy, have this in common, that they are either on the sea-shore, or on the banks of marine estuaries. The most probable conjecture is that it is caused by some peculiar diet common to marine localities. That it is due to fish eaten in some peculiar state may be plausibly suspected. The fact that it is met with in such widely distant parts renders it improbable that it is due to any particular variety of fish. The sum of

our conjectures, then, appears to amount to this: that leprosy is far too specific and peculiar in its symptoms to allow of our supposing it due to the influence of general poverty; that the cases in which Europeans are attacked all indicate the power of endemic influences; that of endemic influences food is the one which has most of probability as to its being the true cause; and, lastly, as the disease is only met with near the sea, we may plausibly guess that it is in some way connected with the fish diet." Vinkhuysen, who has written a work of great interest and importance on this subject, expresses a very decided opinion that it does not depend upon any specific poison; but that it develops under the combined influence of a series of external causes, amongst which bad food, a want of fresh food, the imperfect care of the skin, and filth in general, occupy the chief place.

In the accounts received from upwards of two hundred medical men scattered over forty-five different countries, where leprosy is more or less common, we find that in thirty-five out of the forty-five countries the disease is reported, on medical evidence, to be much influenced and promoted by the semiputrid, or otherwise unwholesome, food on which the poor class of the inhabitants subsist. In seven countries, no mention is made of the effects of the diet; and, with regard to three countries only, is an opinion expressed that food has no influence, either for good or evil, on the progress of the disease.

Again, in twenty-six out of the forty-five countries to which I have referred, fish, either salt or fresh, and generally in a state of partial decomposition, is mentioned as the chief or only animal food of the classes amongst which leprosy is common. In some instances salt pork is also used. Besides stinking fish and pork, musty, or otherwise bad, grain and pulses are often mentioned as the staple farinaceous food.

The question, however, is not whether the eating fish, especially bad fish, has any significance as an etiological factor, but whether there is any special diet that produces a *specific* effect—standing, in short, in the same relation to leprosy that lathyrus sativus does to a certain form of paraplegia, or spurred rye to ergotism. It must be admitted that the *fish theory* is much weakened by the fact already mentioned, that the disease exists where this diet is unknown. Fish is the staple, and often the only animal food of the whole tropical world; what wonder, then, that we should find it largely used in leprous countries? I believe that it would be quite possible to show that people who suffer, say, from tropical remittent fevers, are great consumers of fish.

While, therefore, I do not believe that fish, as such, has any especial influence in promoting this disease, I fully admit that decomposing and unwholesome food of all kinds has a marked effect on the progress of the malady, and further, that as fish is a kind of food very largely used, and at the same time very ready to undergo decomposition, it has acquired an exaggerated reputation as a cause of leprosy.

6. *Hereditariness*.—The existence of hereditary tendency to leprosy has been admitted in all ages and all countries from the time of Avicenna to the present day, and is now one of the factors very generally recognized.

Virchow mentions an early instance of hereditary transmission, in the case of a citizen of Frankfort-on-the-Main and his two daughters, who were received into an order of lepers in 1283.

Sir J. Simpson records a case that occurred in Glasgow in 1581, where one Patrick Bogle was ordered to be inspected for leprosy, and eight years afterwards Robert "Bogill, sone to Patrick Bogle," is reported as an inmate of the leper-house belonging to the city.

In our own time, Danielssen and Boeck have stoutly maintained that hereditary predisposition is one of the chief causes of the perpetuation of the disease in Western Norway, and in support of this view, they allege that out of 213 cases of leprosy 187 occurred in leprous families. In this calculation, however, they include collateral as well as direct relationship. In Crete, out of 122 lepers, according to Brunelli, the disease appeared to be hereditary in 76 cases, and spontaneous in 46. The accuracy of Danielssen's conclusions on this point have been contested by Dr. Hjort, who says:—From time to time the relationship of many hundred lepers to each other has been carefully investigated, and the result has shown that many of them are more or less akin; and from hence the conclusion has been drawn that the disease was hereditary in all those lepers who were related. It will be plain to all, that this conclusion does not rest on a sound basis; and that a malady can only be inherited when the seeds thereof pass in a direct line from parents to children, while those persons who are only collaterally related do not inherit the disease one from another. When both parents and children become leprous at the same time, we may reasonably conclude that the children have not received the disease from their parents, but that the malady has arisen in both parties from external causes common to both.

In relation to the spread of the disease by hereditary transmission, it is worthy of note that in those regions where it prevails



endemically within a limited space, it is confined almost exclusively to certain families, among which it is perpetuated through intermarriages. This is the case in Provence, Asturia, Galicia, and also among some Dutch families at the Cape, and the same fact is noticed in Debes's account of the Faroe Islands. My friend, Dr. Creighton, has suggested to me that this principle may be, to a certain degree, generalized and extended from families to nations. In other words, leprosy exists on the earth's surface in exact inverse proportion to the amount of commercial exchange, intermixture of races, and other elements of civilization; that it persists among communities shut in by the sea, or by the social barriers of prejudice, caste, etc., and which have not been able to eliminate the specific element of the disease by natural selection.

A few cases are on record of children who have sprung from infected parents having been attacked by the disease at a very early age, and in some instances after quitting the leprous country in which they were born; but cases of this kind are very rare; therefore, when we speak of the hereditariness of leprosy, it must be understood in a different sense from that of syphilis; that is, it is not true of the disease itself; and, as Virchow remarks, it can only refer to a predisposition to leprous disease, in the same way as cancer or phthisis are spoken of as hereditary; the development of which calls for certain external relations, or under favorable circumstances may fail altogether. If it were truly hereditary, it would probably show itself much more frequently in early life, as congenital syphilis invariably does; it is not, however, till the period of puberty is reached that the disease declares itself. While fully assenting to Virchow's distinction between *true hereditariness* and *hereditary predisposition*, I would remark that the latter quality is far more developed in leprosy than it is in cancer or even phthisis; but the difference is no doubt one of degree rather than of kind. On the other hand, that the seeds of a disease should remain dormant in the system from birth until that time of life is reached which is favorable to the development of the malady, does not seem to me more remarkable than that symptoms of tertiary syphilis should suddenly appear after an interval of many years of perfect health.

7. *Contagion* as a cause of the propagation of leprosy was fully believed in the Middle Ages, and even now in many countries the same opinion obtains; and the exclusion of lepers as a hygienic precaution is still practised in China, Palestine, and many other places. Even where strict seclusion is not insisted on, lepers are very generally shunned through fear of

infection. On this point, my friend Mr. Macnamara remarks of the natives of India, that "although lepers move about among their countrymen, they are to a great extent isolated from them. Who ever saw a healthy native touch, much less eat with, one affected with leprosy? In many parts of India, the fact of admitting a leper to a general hospital is sufficient to drive away every other person out of it." Again, the belief in contagion in Dutch Guiana, says Dr. Van Holst, is so strong, that the people are afraid of shaking hands with any persons who are suspected of the disease, and even of sitting on the same chair that they have occupied, or of using the same privies. This sort of evidence of contagion is, however, of little or no value; only those who are trained to observe and analyze, and who are perfectly free from any fear of infection, are entitled to give an opinion worthy of our consideration.

The conclusions arrived at by the Leprosy Committee of this College are clear and to the point. Their report states: "The all but unanimous conviction of the most experienced observers in different parts of the world is quite opposed to the belief that leprosy is contagious or communicable by proximity or contact with the diseased. The evidence derived from the attendants in leper-asylums is especially conclusive upon this point. The few instances that have been reported in a contrary sense either rest on imperfect observation, or they are recorded with so little attention to the necessary details, as not to affect the above conclusion. That leprosy is rarely, if ever, transmissible by sexual intercourse, when one of the parties has no tendency whatever to the disease, is the opinion of a great majority of the respondents who have had the largest opportunities of observation." The existence of contagion is altogether denied by Hjort, Danielssen, and Boeck; but Dr. Hoegh, in his report on leprosy for 1855, suggests that the disease is communicable through the itch acarus, which in Norway commonly infests the skin of lepers. He mentions a remarkable case in point, which had come under his own observation, of a family living at a farm in the Bergen district, 2,000 feet above the sea-level. The eldest daughter, aged 25, associated with a leprous girl of the neighborhood, and became afflicted with the disease; a sister who slept with her, and a brother aged 15, both subsequently became lepers; and lastly, the mother fell a victim to it. In this case there was no history of hereditary taint, and none of the family had suffered from cold or privations of any kind, but all were severely affected with itch. This is the strongest case in favor of contagion that I have met with in Norway; but after all it only amounts to this—that four members of one

family, living together in a country where leprosy is endemic, became lepers. In the reports returned from India and our colonies by about two hundred medical men, I find only ten that express a decided opinion in favor of contagion. I will quote the first as an example. Writing from Granada (West Indies), one of them says: "I have seen a few persons among those affected where contagion appeared evident. A young girl of twelve or fourteen years of age slept in the same bed with a young woman who had symptoms of leprosy. Within twelve months the girl presented the red patches, and seven or eight years after she was a confirmed leper. The mother of the girl contracted the disease, but the father escaped. I do not think the disease in its incipient stage transmissible by sexual intercourse. I consider that contagion will take place when ulcerations exist with copious discharge, and this can only occur in tuberculous leprosy." It is almost unnecessary to comment on testimony of this kind; I shall therefore pass at once to evidence of a much higher class, and well worthy of the consideration of all who are interested in the subject. In South America, and in several other countries, we have the strongest reason to believe that leprosy did not exist formerly among the native tribes, but that it was imported from other countries and has now spread among the aborigines, even where no intermarriages have taken place. The factor of hereditary transmission is here excluded.

The history of the leprosy in the Sandwich Islands, if we are rightly informed, is a very remarkable one. According to Dr. Hillebrand's account (which is published in Dr. Macnamara's pamphlet on *Leprosy*), the disease was introduced into Honolulu by Chinese emigrants in 1848, and Dr. Hillebrand saw the first leper in 1853; ten years later, the disease had appeared in six other persons dwelling in the immediate neighborhood, and, according to a recent census, the lepers now number 250. Mr. Erasmus Wilson, in his lectures lately delivered before the College of Surgeons, remarked on the significance of these facts, and expressed it as his decided opinion that, though leprosy was non-contagious in Europe, it was probably contagious in tropical and semitropical countries.

It would be very interesting to learn more of the history of the disease in the Sandwich Islands than we know at present, and especially as to the number of imported cases, as compared with those that have originated in the Islands. Again, leprosy has existed for some time past amongst the Chinese emigrants in Australia, and lately it has been reported that the disease has spread beyond the Chinese population. I have ascertained,

however, that the Colonial Office has received no information as to the authenticity of the report, and in the absence of further evidence, we cannot come to any conclusions on the subject. Landré has lately attempted to prove that the disease is contagious in Cayenne, and he has brought forward many striking cases in proof of his views; but some of his examples, if they prove anything, prove too much—namely, that the disease is highly infectious, and this no one is inclined to admit.

We cannot shut our eyes, however, to the fact that leprosy very frequently occurs in members of the same family, even when hereditary transmission is out of the question; and that Europeans not unfrequently become leprous by residence in countries where the disease is endemic. I have lately had under my care a very severe case of leprosy in an English gentleman who was born and lived in England during the early part of his life, but afterwards resided for many years in a country where the disease is common, and where he fell a victim to it. Many other similar cases are on record. Kaposi has met with four such. Case 1, male, 45; born in Turin. At thirty years of age he went to Cairo. The disease began after ten years' residence there, and after five years it had produced an abundant formation of nodules on the face and hands. 2. His wife, ten years younger. She was also born in Turin, and went with her husband to Cairo. She fell ill two years later with tubercular leprosy, but had after three years' illness anæsthesia of the hands. 3. A female, aged 48; born in Alsace. When aged 17, she went to New Orleans, and was taken ill when 44 with the tuberculated form. 4. A male; born in Hamburg. At 28 years of age he went to Rio, was taken ill seven years later, and when seen in Hebra's clinic, had well-marked tuberculous leprosy.

The problem to be solved is this: Do the physical and natural relations of the country alone explain these facts? If not, we are driven to the conclusions that the disease is some way communicable from the unhealthy to the healthy. For my own part, I am inclined to believe that, though leprosy is possibly not contagious in the ordinary sense of the word, it is nevertheless propagated by the imbibitions of the excretions of those affected, much in the same way as typhoid fever or cholera is propagated; but as leprosy is developed but slowly, there is far greater difficulty in tracing it home to its true source. This hypothesis gives the best interpretation of many facts in the past and present history of the disease which would otherwise remain unexplained.

'*Sewes*.—There is a prevailing opinion in the present day that

leprosy more commonly attacks males than females. On this point, we obtain little or no exact information from a study of its history. The leper-houses throughout Europe were sometimes provided for both sexes conjointly—as, for example, that of St Nicholas at York, which contained both male and female lepers. In other places they received one sex only, as at Nuremburg, where, of the four leper-hospitals, three were allotted to women, and only one to men. But the records of the time do not generally show the relative number of the males and females admitted; nor would such information, if it existed, be a very certain guide to determine the point in question. An investigation of the number of cases admitted into the hospitals of tropical countries in the present day, would lead us to the conclusion that the disease is far more common in males than in females; but I may state at once that deductions from this source are entirely fallacious. It is well known and admitted on all sides, that in most countries, but especially in the East, the women are far more unwilling than the men to enter the leper-hospitals. Hence it is that we find a great disproportion between the males and the females admitted; and this fact has led superficial observers to erroneous conclusions on the subject. The only records I can find, that are not open to this objection, are those of Norway and Jamaica. The latter are obtained from a census of the whole island, where no doubt many lepers of either sex were overlooked, but probably in about equal proportions. We find in Norway, out of 906 cases, 461 were males, and 445 females; and in Jamaica, out of 778 cases, 391 were males, and 387 females. In the latter country, there are about 5 per cent. more women than men. Thus, if we are to judge by the statistics of these two countries, we must admit that the disease is nearly equally common in both sexes. Dr. Vandyke Carter seems to think that the leprosy returns in the Bombay Presidency are sufficiently trustworthy to establish the fact that the disease is there much more common amongst men than women. He says: “The proportion of the sexes amongst all lepers is 4.38 males to 1 female, or nearly four times as divergent as that of the normal population, estimated at 1.1 males to 1 female.” We require some further information on this subject.

I will briefly sum up the conclusions to be drawn from the foregoing account of the etiology of the leprosy. Firstly, its primary cause is yet unknown. Next, of secondary causes, diet and hereditary tendency are by far the most important; and that climate, soil, and race are not without a certain influence on the development and progress of the disease. Lastly, leprosy,

if not contagious, is capable of propagation by the imbibition of the excreta of lepers.

### LECTURE III.

The identification of leprosy as a distinct disease has been beset with difficulties. Up to a late period it was confounded with several other disorders, such as the Barbadoes leg, syphilis, and scurvy. By some it was supposed that certain local maladies, such as the radesyge of Norway and the pellagra of Lombardy, were only different varieties of leprosy; and it was even believed for many years that the leprosy of Iceland and Madeira respectively, and the spedalsked of Norseland, constituted distinct species from elephantiasis Græcorum. All this of necessity led to much confusion; and not until Drs. Danielssen and Boeck had visited the eastern shores of the Mediterranean was the question finally set at rest, and the identity of leprosy in all parts of the world fully established.

At the present day, leprosy is universally recognized as a constitutional disease, *sui generis*, and manifesting certain well-marked and characteristic features. It is especially a malady of young adult life; yet no period from infancy to old age is entirely exempt from it. Dr. Vandyke Carter was one of the first of our countrymen to describe accurately the three principal forms assumed by elephantiasis Græcorum, namely, (1) the macular, (2) the anæsthetic, and (3) the tuberculated. These three forms are often only different phases of the same disease, and are sometimes seen coexisting in one and the same individual. Nevertheless, in typical cases, their clinical features are sufficiently distinct to justify the nomenclature now usually adopted.

*The Premonitory Stage.*—The early stage of leprosy is characterized by lassitude, and a sense of bodily and mental weariness and depression, without any assignable cause. These symptoms last for an uncertain time, which may be measured by weeks or months, and are usually accompanied or followed by slight rigors, loss of appetite and nausea, with occasional nocturnal febrile attacks, and other unequivocal signs of general constitutional disturbance. After a time this is followed by what Danielssen and Boeck call the “periodically eruptive stage,” in which an acute eruption breaks out on different parts of the body, the skin of which becomes red, swollen and tender in patches. After a few days or weeks, these blotches subside, but often leave behind a patch of brown pigment in the seat of the eruption, which may be for a time

more or less anæsthetic; sometimes, however, they pass away, and leave no apparent trace of their former existence. Several months may elapse between successive crops of these red blotches, but with each return there is an increased liability to permanent tissue-changes in the true skin.

Among the prodromata belong occasional outbreaks of bullæ, like those of pemphigus, which may last for many months before the regular leprosy sets in. This eruption is distinguished from idiopathic pemphigus by the fact that bullæ usually appear singly and suddenly, one healing before another shows itself. They vary in size from a nut to a hen's egg, and generally break a few hours after they appear. During the febrile attacks, there is often an insatiable thirst.

This drawing has been made for me by my friend and pupil Mr. David Hepburn, from a case of leprosy now under my care at Middlesex Hospital, and shows the disease in an early stage of its development.

1. **MACULAR LEPROSY.**—After a longer or shorter premonitory stage (or sometimes without any at all), permanent maculæ appear in the skin; the spots assume various forms, of which the following are the most common and characteristic. They consist of more or less circular spots, varying in size from half-a-crown to the palm of the hand. The edges are a little raised and of a reddish color, the redness disappearing under pressure. The centre is slightly depressed, pale, dry, and sometimes white and shining. The tendency of these spots is to spread at the circumference. The hairs on the patch are more or less atrophied, and may become gray or perfectly white, and the skin in the centre loses its sensibility. After a time, the spots shrivel and become atrophied, either uniformly or in patches, so as to present an appearance of many small, shallow, white, scar-like depressions. The areas affected sometimes become blended, and then form large surfaces of altered skin.

2. A more common appearance than the one above described is that of discolored patches, which sometimes present a raised margin, and often occupy a large tract of skin, which becomes covered with a dark pigmentation. The centre of these may be of a lighter shade, or even white, and thus irregular rings and markings are produced. These white spots may again become brown, in consequence of fresh pigmentary deposits. In most of them, sensation is impaired.

Danielssen, speaking of what he calls the "permanently eruptive stage," says, "the discolorations no longer disappear under pressure; their color is more intense, the thickening of

the corium more notable; and there will be no longer any retrogressions or disappearances of the eruption."

The various forms and appearances which macular leprosy assumes in the different stages of its progress, and in different individuals, hardly admit of a detailed description. They can only be fully realized by the inspection of a large number of cases.

II. ANÆSTHETIC LEPROSY is sometimes a further development of the macular variety. At other times, the changes in the skin are so slight as to escape notice, until numbness over patches of otherwise healthy looking cutis first attracts attention. It is in anæsthetic leprosy that the eruption of bullæ, which I have already described, is most frequently seen. After the blebs have burst, they usually dry up and scale, leaving dark pigmented patches, or more commonly white spots, from the absence of pigment. Occasionally, however, instead of drying up, they form into ulcers, which subsequently slowly cicatrize, and give rise to thick, smooth, irregular scars. At first, the spots which remain after the disappearance of cicatrization of the bullæ, may retain their normal sensibility, but sooner or later they all become anæsthetic. At the same time that these changes are going on, hyperæsthesia may exist in healthy looking parts of the skin; and patients often complain of pricking and shooting pains in the fingers and toes, with jerkings and shakings of different parts of the body, so much so in some cases that they require to be fed. This hyperæsthesia, which may be either local or general, often lasts for months or even years, and causes great distress to the sufferer, who lies torpid in bed, because walking or even moving is attended with great pain. The handling things, moreover, causes all kinds of subjective sensations, such as burning, stabbing, and irregular reflex muscular action. Later on, the hyperæsthesia diminishes or disappears, and is followed by the characteristic feature of the disease, namely anæsthesia, which commonly, though not universally, develops in those parts of the skin which have been previously hyperæsthetic, or the seat of abnormal pigmentation.

Thus we see that the pemphigus, maculæ, the hyperæsthesia and the anæsthesia are all closely related, and follow each other in a kind of series. For example, a spot of the size of a crown may appear on the face, of a pale red tint, slightly swollen, and painful to the touch; to this succeeds an alteration in the pigmentation of the part, so that the spot becomes white or brown, and at the same time its red edge advances, and forms a small hyperæsthetic zone round an inner anæsthetic



area; outside of all, is healthy-looking skin. The anæsthesia, which is at first confined to one or two spots, may gradually invade almost the whole surface of the body, and especially it may affect unchanged patches of skin.

The insensible parts do not generally correspond with the distribution of particular cutaneous nerves, but spread into the area of several nerve trunks, or occupy one only partially; even in the midst of a large anæsthetic district, there may be sensitive islands. In some cases, the loss of sensation is so complete that patients may be severely burned without knowing it. Mr. Arthur Gordon, speaking of a visit that he paid to the Leper-Hospital at New Brunswick, says: "One individual was pointed out to me whose hand and arm had been allowed to rest accidentally on a nearly red-hot stove, and who had never discovered the fact until attention was arrested by the strong scent of the burning limb, which was terribly injured."

As the disease advances, atrophic changes occur in the skin and deeper tissues. The cutis becomes dry and wrinkled, and assumes in patches the appearance of extreme old age, whilst the adjacent parts are plump and natural. The face looks prematurely aged, and the expression comfortless; the muscles waste, and, as the atrophy advances, the features become twisted and deformed; the lower lid is everted and recedes from the eyeball, leading to an overflow of tears, and haziness of the cornea. The lower lip falls away from the gum, the saliva dribbles, and the whole expression becomes vacant and painful.

The hands and feet are similarly affected with muscular atrophy; the flexors overcome the extensors, the backs of hands sink in (especially at the first interosseous space), and the palm is arched outwards; the fingers are curved, stiff and claw-like, and their tips club-shaped. The skin over the semi-flexed joints becomes tense, thin and shining, the epidermis scales off and bursts, and thus indolent ulcers are formed. Gradually the destruction extends deeper, the joint ends of the bones are laid bare, and the joints opened; and at last, as a consequence of the gradual shrinking and breaking up, a whole phalanx is separated. When the distal bone is removed, the altered nail and pulp are sometimes transferred, as it were, to the second segment of the digit. Generally, however, two or more phalanges are involved either together or consecutively; the parts fall off without giving pain, and thus a whole hand may be amputated. The mutilation does not often extend to other joints than those of the hands and feet. The

pathological process which produces all these changes in the tissues has been aptly called dry mummifying necrosis.

Associated with these visible effects of the disease, there is often an abnormally low temperature, which, however, is not confined to cases of the anæsthetic variety. These tables of temperature, very carefully prepared by my friend and clinical assistant, Dr. Balding, from two cases of tuberculated leprosy now under my care at the Middlesex Hospital, serve to illustrate this point. It will be seen that the morning temperature at 9 A.M. is always below normal (about 97°); while in the evening it is sometimes a little above, but more often below, the mark.

III. TUBERCULATED LEPROSY.—This variety of leprosy is that most frequently met with in Europe, but is less common in India than the anæsthetic form. It is ushered in by the usual premonitory symptoms, and, like anæsthetic leprosy, is sometimes an advanced stage of the macular variety.

As I have already mentioned, with each eruptive attack pigmentary changes are apt permanently to alter the appearance of the skin, and in these patches the characteristic tubercles are most liable to develop; the original maculæ acquire greater stability, the skin thickens, and flat prominences appear on its surface; as their number increases they coalesce, and cause an exaggeration of the original lines and furrows of the skin, which acquires at the same time a shining coffee-colored tint, and the consistency of India-rubber. The tubercles and thickened cutis are tender on pressure; their chief localities are the eyebrows, the lobes of the ear, the alæ of the nose, and the extensor surfaces of the upper and lower extremities. The skin of the forehead becomes thickened, its furrows deepened, and its prominences exaggerated; on the eyebrows especially tubercles are apt to be well marked, forming a kind of roof over the eye, furrowed by deep partitions, and producing the morose aspect so characteristic of the disease. The hair of the eyebrows, especially at the outer part, is soon lost; the nose is tumid, and occupied by nodules and tubercles; the cheeks are thick and hanging; the lips hard, swollen, shining, and everted; the chin broad and nodular; and the ears—stiff, shining, and thickened—stand out from the head. The bronzed appearance, and the thick everted lips and ears, give to an European the aspect of a mulatto. The hands and feet are, next the face, the parts most commonly affected; the backs of the hands become swollen with oedema and thickening of the tissues, and the skin of a brownish red color; the fingers stand

stiffly apart, are thickened and club-shaped at the tips; the nails dull, dry, and fissured. Various retrogressive changes may occur in the tubercles and altered skin; among these, atrophy is the most common. The nodules shrink, and are more or less absorbed; the epidermis scales off, and a round, flat, pigmented spot remains; over the spot the skin is thin and atrophied. More rarely the nodules suppurate, and the entire mass breaks up into cheesy pus. Not unfrequently superficial ulcers or simple excoriations form over the surface, and give rise to a thin secretion, which dries and forms into crusts. Occasionally, though rarely, the ulcers spread deeply into the subcutaneous tissues, and may lead to a separation or destruction of the bones of the phalanges, producing an effect similar to that described in anæsthetic leprosy; but in this respect, what is the rule in the latter, is the exception in the tuberculated form.

During the early stages of the malady, the lesions are confined to the skin and subcutaneous tissues; and it is only after it has lasted for years that the mucous membranes of the tongue, mouth, fauces, larynx, and conjunctivæ, are affected. The changes which occur in these structures are akin to those met with in the skin. The hard and soft palate may be seen to be nodulated and fissured; the dorsum of the tongue acquires a peculiar aspect, from the great prominence of the papillæ and the gray opacity of the epithelium; the tongue itself becomes dense, stiff, and furrowed; the epiglottis is also nodulated, and almost immovable; while the implication of the true and false vocal cords produces the obstinate cough and the peculiar hoarse whisper which are marked symptoms of an advanced stage of the disease. Inflammatory changes may occur in the conjunctivæ which are independent of any leprous formation, and produced by imperfect closure of the lids; and sooner or later, from one cause or another, the cornea becomes opaque and vision impaired, or entirely destroyed.

As the changes in the skin and mucous membrane progress, the general organism suffers more and more, and there is increasing feebleness, loss of appetite, and mental depression; the powers of nutrition fail, and an attack of plithisis or diarrhœa soon closes the scene. The average duration of this form of leprosy in countries where it is endemic is about eight or nine years or less; that of anæsthetic leprosy sixteen or seventeen years.

After *tubercular* leprosy has run its typical course for many years, a new symptom may appear—namely, anæsthesia; and the disease may gradually assume the type of the anæsthetic

form. Much more commonly, however, the type remains unchanged—the loss of sensibility in small patches of skin being very common in true tubercular leprosy. This combination of symptoms has given rise to the name of *mixed* leprosy.

With regard to the febrile attacks which recur during the course of the disease, Hebra and Kaposi remark: "We are of opinion that the fever has partly the same importance as that which accompanies the outbreak of variola or syphilitic roseola, and in part is the result of a metastatic process, as Hanson holds. When many nodules soften at once, it is obvious that the absorption of broken-down elements may excite fever, and this may be associated with a new external metastasis (softening of one set of nodules, and production of another). A metastasis may also occur in internal organs, as the *post-mortem* examinations show, or elimination may take place by the ordinary excretory apparatus. For the initial fever, a toxic influence, as of a disease of the system at large, may readily be assumed."

I shall illustrate the clinical features of tuberculated leprosy by the short history of a very severe case that has been under my care at Middlesex Hospital for upwards of two years.

M. A. E., aged 45, was born of English parents in the West Indies, where she remained during the first twenty years of her life. She then resided in England for four years; subsequently she returned to the West Indies for one year, and at the age of twenty-five she went to live on the West Coast of Africa, where she remained until 1869, when she again came to England, and has since lived near London. The present disease began in Africa, nearly eight years ago. She describes the first symptoms as having consisted of vomiting and pain in the abdomen, with a sensation of numbness and tingling in the limbs, especially affecting the hands and feet. These were shortly followed by slight swelling of the upper and lower extremities, with some discoloration of the skin, and six months afterwards the face became similarly affected.

Her state has changed but little during the last two and a half years that I have had her under my observation, and may be briefly described as follows: she is a tall, well-formed woman, but emaciated; the hands, feet, face, and mucous membrane of the mouth and throat are the parts of the body most seriously affected. The face is frightfully disfigured by the irregular thickening and wrinkling of the cutaneous tissues, which are especially marked about the lips, nose, that part of the cheeks just below the eyes, and the forehead, so as to present the well-known leonine expression.

There exist the remains of several scabbed sores and scars on the face and hands; a large one is especially noticeable in the centre of the forehead. The skin of the hand is of a darkish brown color, and enormously thickened by tubercular swellings, which are scattered, irregularly, chiefly on the dorsal aspect of the hand and wrist. The palms of the hands are comparatively free from disease. She is, however, quite unable to close the hand, or even to bend the distal joints of the fingers. Brown patches of discoloration are scattered over the skin of the forearm, some of them reaching as high as the shoulder, while here and there a small hard lump can be felt in the skin. There is entire loss of sensibility at the back of the right wrist over a patch of skin rather larger than a crown-piece; elsewhere the sense of touch is almost perfect, although a sensation of numbness exists. The feet, like the hands, are diseased.

The hair of the eyebrows is gone. Rather more than the lower half of each cornea is opaque, but the pupil may be seen by looking obliquely downwards through the upper part, which remains tolerably clear. The patient can perceive light, but is unable to distinguish objects. The tongue is fissured and indented, the mucous membrane of the fauces, soft palate, and epiglottis is much thickened and tuberculated; she speaks in a hoarse whisper, and is troubled with a harsh, persistent, laryngeal cough, showing that the larynx is seriously involved. The skin of the trunk is tolerably healthy; the senses of taste and smell are not much impaired, and the hearing is perfect.

*Morbid Anatomy: Changes in the Skin.*—On examining a section of one of the leprous tubercles, it is found to consist of a yellowish red mass, finely granular and uniformly dense and firm. The tubercle often extends close to the surface under the cuticle; sometimes, however, a layer of apparently healthy skin intervenes. The deep surface is usually not very sharply defined, but shoots off into irregular branches. At other times it is bordered by a firm, dense fibrous layer. Microscopically, the nodules consist of small round closely packed cells and nuclei, mixed with some spindle-shaped filaments, which are seated in a delicate fibrous network of the corium. In young nodules the cell infiltration is not uniform, but is composed of small clusters which are chiefly found near the thickened walls of the vessels, and around the glands and hair follicles, while the intervening connective tissue only shows scattered cell infiltration, and is in places quite healthy. Vessels are very numerous round the infiltrations,

but rare in their interior. The other nodules consist exclusively of cells and soft areola network; in them the gland elements have vanished. The hair follicles are barren, or provided only with a thin crooked hair. The papillæ are distended with cells. The epidermic layer is thinned, while the proper connective tissue of the corium is atrophied; the muscoli arrectores pilorum, on the contrary, are hypertrophied. Outside the infiltration, the tissues are normal or only slightly thickened. Thus we see that the neoplasm of leprosy is not unlike that of lupus, syphilis, and some other diseases. *Its mode of invading the tissues, and the stability of its elements, constitute, however, an important difference.*

The changes which occur in the nerves have been described by Drs. Carter, Danielssen and Boeck, Virchow, Hebra, and others. If one of the long nerves of the arm, for example, be examined, swellings will be found developed at intervals along its course. They are mostly situated at points where the nerve is exposed to mechanical injuries by its superficial position, or its relation to the bones; thus the median is most severely affected where it runs over the bones to the wrist, whilst the ulna is especially liable to suffer at the elbow-joint.

At the enlarged spot the normal color of the nerve becomes changed to a dirty gray or brownish semitransparent hue; at the same time the nerve itself becomes tough and hard, and on section looks abnormally homogeneous.

Under the microscope the neurilemma of the nerve is seen to be changed, sometimes only slightly, while at others it is metamorphosed into a hard resistant mass. The most important changes lie deeper in the inner septa of the nerve-febrillæ and in the interstitial nerve-substance. These changes begin frequently close under the neurilemma, where we find a strongly refracting mass deposited; they continue thence to the greater septa, which split up the nerve bundles into a series of smaller ones. The dark mass which fills these parts is composed of a dense accumulation of cells, which are found everywhere between the individual primitive fibres, surrounding and enclosing them.

Virchow says that after the disease has persisted a long time, fatty degeneration may occur, or there may be complete atrophy of the primitive nerve-fasciculi. Danielssen and Boeck found similar changes in the small nerve-branches of the skin and subcutaneous areolar tissues. The disease of the nerves thus seems to be a chronic inflammation, and the frequent interchange between hyperæsthesia and anæsthesia is explained by the more or less complete absorption of the inflammatory pro-

ducts. Similarly the remarkable fact is explained, that the anæsthetic area does not always tally with those of the distribution of the larger nerves, by the discovery that in the first period of nerve-disease, all the fibres of a great trunk are not simultaneously implicated. When once the growth is uniform, and there is persistent thickening of the neurilemma, the anæsthesia becomes permanent, especially when atrophy or fatty changes in the nerve itself ensue.

A question arises whether, independently of other proper clinical symptoms of leprosy, the anatomical changes just described in the nerves can be regarded as strictly leprous. Bergmann says that the leprous new formations between the nerve-fasciculi, differ from inflammatory ones by the mode of their accumulation in small circumscribed groups, giving a decided resemblance to cutaneous tubercular formations. But Virchow and others hold that the atrophy of the nerve-fibres is produced, not by the leprous disease itself, but by a chronic inflammation often connected with it.

Hebra and Kaposi are of the same opinion. They admit that the cellular infiltrations along the connective sheaths of the nerve-fasciculi and primitive fibres, the thickening of the walls of the vessels and the fatty changes and atrophy of the nerves themselves are among the symptoms of leprosy, but not characteristic of it, and that they can only be so regarded when found in connection with other signs of the disease.

Identical changes of the nerves and similar functional disturbances occur, though rarely, when nerve-trunks lie near the seat of chronic inflammations, and are occasionally met with in the Barbadoes leg, in lupus, and in chronic forms of scrofulous caries and necrosis.

The lymphatics, especially the inguinal ones, are attacked in all forms of leprosy, particularly in the tuberculated variety. They become enlarged, firm, thickened, and varicose. The testicle is also sometimes attacked, and deposits of round cells are sometimes found in its substance; and, if leprosy begin before puberty, the testis is apt to remain but poorly developed.

Of internal organs, the lungs, liver, spleen, and kidneys are often found diseased, but the researches of Danielssen and Boeck tend rather to show that the changes in these organs do not specially belong to leprosy, but are rather incidental complications. The appearances these observers have found in the lung, pleura, mesentery, peritoneum, etc., admit of the inference of a tubercular origin rather than of a specific leprous affection, and it is well known that Bright's disease is a frequent concomitant of advanced leprosy.

*Complication.*—The only complication of leprosy to which I shall direct attention is scabies, so commonly met with in Norway; and which is interesting, because some observers have believed that it served as a means of propagating the disease by contagion. Norwegian scabies is a very severe form of the ordinary disease, and becomes so, simply because it is allowed to go on for years unchecked; and for the same reason, it was formerly extremely common among lepers, many of whom were more or less covered with dry horny crust, of a dirty brown color, and upwards of an inch in thickness. These crusts were found to be composed of the dead bodies, eggs, and other remains of acari agglutinated together; the products, in short, of twenty or thirty years of scabies piled over each other. On forcibly removing the crusts, living acari were sometimes found on the excoriated surface beneath. This disease has really nothing in common with leprosy, and occurs only in the way I have explained, through neglect.

*Allied Diseases.*—Some account of those diseases which are most nearly related to leprosy would be a very interesting part of my subject; but it is one which time will not allow me to dwell upon. Leprosy is undoubtedly allied, on one hand, in its pathological processes, to such diseases as scrofula, lupus, and syphilis; while, on the other hand, it is closely connected, both clinically and etiologically, with maladies of the scorbutic class; amongst these I may mention, scurvy, pellagra, ergotism, chronic poisoning by lathyrus sativus, and, perhaps, the button-scurvy of Ireland. Now, all these are admitted dietetic diseases, and are known to depend on the persistent use of defective or actively injurious food; while their clinical features forcibly remind us of true leprosy. For example, the dry mummifying necrosis of the distal segments of the upper and lower limbs met with in chronic ergotism closely resembles that of anæsthetic leprosy. Again, in pellagra, we have a constitutional disease, more or less chronic, and characterized by recurrent febrile symptoms, with an eruption of red patches, and sometimes bullæ, especially attacking the skin of the face, hands, and feet, and followed by desquamation of the cuticle, leaving the skin thickened, rough, and fissured; the bullæ appear in succession, and leave behind pigmented spots. As the disease advances, there is diminished general vitality, defective nutrition, pain in the limbs, cramps, convulsive movements and atrophy of the muscles, and not unfrequently permanent discolorations of the skin. Subsequently, nervous symptoms may supervene in the form of mania or melancholy, or, as more frequently happens, death occurs from nephritis, phthisis, or some other disease. It



is impossible to find another malady so closely allied to leprosy as this, both in its history and clinical features; and if we assume that it is specifically produced by the habitual use of diseased maize, we have a suggestive fact as to the influence of bad food on leprosy itself.

No one has ever succeeded in curing a case of leprosy; and however much we may hope that some drug may yet be discovered which will exercise a curative effect on the disease, we cannot but admit that means of *prevention* are more likely to be efficacious than any attempts at *cure*.

Before concluding, I desire to express my thanks to my friends, Dr. Duffin, and Dr. Creighton, of St. Thomas's Hospital, for their valuable assistance in translating for me various passages from the German writers of the day, several of which I have quoted in the foregoing lectures; also to Dr. Balding and Mr. David Hepburn for their drawings.

In conclusion, I beg to thank you, sir, and my audience generally for the kind encouragement you have given me in attending lectures on a subject which must, of necessity, be uninteresting to the great mass of our profession in this country.

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## ON THE EARLY SYPHILITIC AFFECTIONS OF THE BONES.\*

By CHARLES MAURIAC, M.D.,

*Physician to the Hôpital du Midi, Paris.*

TRANSLATED FROM THE GAZETTE DES HÔPITAUX, BY M. H. HENRY, M.D.

THE number of acute tumors of the pericranial periosteum varies greatly, and appears to exist in an inverse ratio to their volume; sometimes singly, at others forming a confluent-like eruption on all the regions of the head. Most frequently one or two are seen on the frontal or parietal regions. It is, in effect, on the surface of these bones that the tumors are generally situated. They are more rarely seen on the posterior half of the cranium. Whatever may be their number, their situation, and their dimensions, they almost invariably present the same characteristics. Immoveable and fixed to the bony surface, they are, on the contrary, free from all adhesions to the surrounding aponeurosis and skin. They are generally clearly defined. Their periphery is only undefined when they are large and extended. In consistency they are hard and uni-

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\* Continued from the last number of the Journal.

form at all points, and during the whole course of their existence. The surrounding cellular tissue is rarely infiltrated with serum and plastic lymph. On the surface of the tumors the skin retains its normal color and slides readily over them. Their prominence above the surrounding parts varies, but is sufficiently marked to prevent any doubt regarding their existence; they are too sharply defined to lead to any confusion by associating them with other tumors seen in this locality.

These tumors are very sensitive to pressure, particularly when situated on the forehead, and where the hat rests. The most important feature is the spontaneous sensibility of which they are the centre. When acute cephalalgias occur at the inception of syphilis and when fronto-occipital, and tempero-parietal neuralgias coincide so frequently with pericranial periostitis it is difficult to disbelieve the existence of causality between the lesion of the pericranium and the painful irradiations. This is evident from the fact that pressure not only increases the local sensibility, but aggravates also the principal nerve branches involved on the external surface of the cranium. While it is true that these nodes never exist without painful syphilitic manifestations, the latter frequently occur in the absence of any material or appreciable lesion of the pericranium. When not interfered with, the duration of these pericranial nodes varies from four to six weeks. By adopting an appropriate treatment they disappear much sooner. Their course is therefore relatively acute, and I do not know of so rapid a progress in any of the consecutive accidents of syphilis excepting, possibly, certain congestive roseolas. It is difficult to determine, with any numerical exactness, their frequency. I am convinced they would be more frequently seen if sought for, or the patient's attention called to them. Although it cannot be said that it is one of the usual morbid phenomena by which the general infection manifests itself, it is, at least, one of the less rare of the exceptional ones.

The diagnosis of pericranial nodes is not a difficult one, especially when they are multiple and confluent-like. They should not be confounded with the frontal and parietal protuberances which, in some subjects, project and form almost circumscribed swellings, sometimes very painful in certain fronto-parietal neuralgias. Notwithstanding the similarity of these features, the error may easily be avoided by bearing in mind that the consistency of these nodes, though hard, is not bony; that their base is usually circumscribed, their projections sharply defined, and their rounded periphery gives them a fusiform appearance. A few of the lymphatic ganglia of the

cranial region might be mistaken for nodes. Among them may be mentioned those situated behind the ear, on the surface of the mastoid process, and those in the vicinity of the superior ridge of the occipital bone. These small ganglia, under the influence of the early evolutions of syphilis, sometimes become very hard, and almost immovable; but their sensibility is much less than that of the periosteal tumors, and, as previously stated, the nodes are more frequently developed on the anterior aspect of the cranium. It is important to bear in mind that the cervico-cranial adenopathies are almost always coincident with the nodes. According to M. Diday,\* the adenopathies which occasionally manifest themselves in the absence of any eruption on the scalp, the face, and neck, would not depend on a general constitutional adenitis, but would arise in the same manner as the prodromic cephalalgias of a true disease of the pericranium.

Have these precocious pericranial periostites a grave prognosis? In order to answer this question it is necessary to regard them in different lights. If we look upon them only as periosteal affections we conclude that they are benign: for, first, there is a tendency to reparation even if not treated; second, the subjacent bones are not seriously compromised; third, the brain is not affected. But in those cases where syphilis commences on the external periosteum of the cranium, could not the dura mater be invaded as well? All that I can say is, that in the cases which I have observed, I have only noticed superficial nervous troubles, extra-cranial cephalalgias; no deep nervous trouble of sensibility, or of movement, or of organs of the sense, have led me to think that the dura mater was involved. There would be no reason, however, to be astonished at such an occurrence, for there is no organic reason or pathological law which hinders the syphilitic tendency to develop on the internal as well as on the external pericranium.

And now it would be necessary to consider the future danger, and to find out whether the appearance of periostitis at the début of consecutive accidents implies in the future any exceptional severity of the constitutional disease. But this is a question which is better treated of later on, when I consider the general prognosis of syphilis.

The epicranial periostites are not the result of a pretended disorder, brought about in the inevitable succession of the phenomena of syphilis by a specific treatment. They come

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\* Diday, Article de Critique Syphilligraphique. *Gazette Médicale de Paris*, 1859, p. 488.

and go without the specific treatment. Mercury, however, and especially iodide of potassium, alternates this manifestation like all others. But it is not indispensable to have recourse to large doses. Five or six centigrammes of the proto-iodide of mercury, and two or three grammes of iodide of potassium, suffice in the majority of cases an unequivocal and sufficiently rapid cure. When a mild, well-marked, nocturnal intermittence, I prescribe thirty or forty centigrammes of sulphate of quinine, and if the neuralgic pains are severe, and deprive the patient of sleep, I combat these nervous accidents with chloral, which has given me excellent results in most of the syphilitic neuralgias.

*The costo-chorideo-sternal periostites.—Thoracic neuralgias, and the asthma symptomatic of the début of syphilis.*

It is not rare to see the thorax at the début of syphilis become, like the head, the centre or focus of neuralgias, which evidence the first effect of the virus upon the economy. Many syphilitics, in fact, complain of fixed and radiating pains, which habitually have their seat about the middle of the sternum, and which extend from there in different directions, but principally behind, along the margin of the false ribs. Like the cephalalgias and pericranial neuralgias these thoracic pains vary much in their intensity and duration, from vague and transitory rheumatoid pains, which fly over the thoracic walls, to sternalgias continuous and fixed, accompanied with respiratory pain, and a painful sensation of constriction in the præcordial region.

I have seen patients who have experienced during the night true attacks of asthma,\* which it has been impossible to

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\* It is necessary not to confound the asthma I have described, and which belongs to the first phases of syphilis, with the attacks of asthma which is observed in some syphilitics in the course of the constitutional disease. The asthma of the début can only be attributed to it. It presents, as will be seen, a great analogy with the prodromic dyspnoeas of pyrexias. The existence of asthma, such as is described by some authors, is none the less proved. The observations of B. Bell and Ebrard, and other observers, are not of a nature to relieve all doubts. I will only say what Sandras said in 1851: "The syphilitic asthmas have the character of nervous asthmas, at the same time that pathognomonic signs compel us to attribute them to syphilis. Such are the return of the asthma or its alternation with osteocopic pains, the presence of pustules, of tumors, of syphilitic ulcerations, with the ascertained knowledge that before the syphilis there was no appearance of asthma. Syphilis occasions asthma oftener when it is associated, either by hereditary or by accident, with gout or rheumatism—that is to say, when it arrives at the period called tertiary or constitutional in a subject primitively affected with irregular gout or chronic rheumatism."—*Traité Pratique des Maladies Nerveuses*, t. ii., page 103.

attribute to any other cause than syphilis. Under what other name can we designate this trouble which develops itself under the form of a crisis in the cardio-pulmonary functions, independently of all appreciable material lesion of the lung and of the heart? The uneasiness, the weight of the præcordial region grow gradually into a sensation of constriction, accompanied by that agony and respiratory anxiety which seems to render suffocation imminent, from want of air, or from feebleness of the cardiac muscle.

These respiratory troubles are observed, however, in the first stage of other diseases, which, like syphilis, are the result of an intoxication of the organism by a morbid principle. In severe variolas and even in mild varioloids, in miliary sweats, in scarlatina and typhus, nodes are not always seen at the début before the splanchnic mucous and cutaneous symptoms, dyspnoeas sometimes severe which simulate profound pneumonias, and diffuse congestion of the respiratory apparatus?

But if we do not know the pathological conditions which produce these cardio-pulmonary neuropathies, it is difficult to explain the mechanism. This mechanism is very complex in syphilis, and it is not doubtful that several elements enter in combination to hinder the free exercise of the respiratory functions.

Among the least hypothetical causes of this nocturnal syphilitic dyspnoea, it is necessary to place in first rank sternalgia, costal neuralgias, and perhaps also a peculiar morbid state of the intercostal muscles, analogous to that which arises in many other muscles of the economy, under the influence of syphilis.

It does not appear to me irrational to admit also that the diaphragm can also undergo the action of the syphilitic virus, in the same way as the biceps or gastrocnemius. Why would it not be the seat of painful cramps, which are such tortures to syphilitics during the night? Assign this action to the most important visceral muscle of the economy, and you will have another very important cause of dyspnoea. Finally, it is necessary not to forget that the cardio-pulmonary nervous apparatus can, like all other nerves, undergo, in a greater or less degree, the effects of specific poisoning. Shall I include in the etiology of this asthma the diminution in the quantity of the white globules of the blood? Perhaps this dyscrasia is not as common as has been imagined—perhaps it is not the only nor the most important of syphilis. But this is not the place to resolve this question. Let us return to the sterno-costal neuralgias.

They play a considerable part in the pathogeny of syphilitic dyspnoeas, for they precede them, and have, in general, a direct

bearing of intensity with them. I have believed, upon the authority of authors, that all these sterno-costal neuralgias belong to the class of painful manifestations of syphilis, independent of all material appreciable lesion. But here, as in the cephalalgias, and cranial neuralgias, observation has demonstrated to me that the neuralgias coincident sometimes with partial inflammations of the periosteum even appear to be dependent upon it. After what I have said on precocious periostites of the cranium it is useless to dwell upon the periostites which are developed upon the surfaces of the ribs, of the cartilages, and of the sternum. There exists between these two lesions, in the point of view of the spot of apparition of symptoms of the duration of the termination of the process, an analogy which it is impossible to understand in reading the following observations:—

Multiple infecting chancres, after six weeks' incubation. Roseola at the twentieth day of the chancres. Costo-sternalgia very intense. Periosteal tumors situated upon the sternum, the centre of a radiating neuralgia; their cure at the end of a month, and at the seventy-eighth day of the chancre. Myalgias. Persistence of secondary symptoms.

R., twenty-five years of age, a locksmith, entered into my service at the Hôpital du Midi, on the 29th December, 1869, Ward 6, bed No. 5; strong, vigorously constituted, usually healthy, no constitutional or accidental disease. Blennorrhagia several times. In the early part of October, 1869, coitus, after a continence of four months, two days after blennorrhagia; one and a half months after, apparition of four infecting chancres—one at the meatus, two in the furrow, and one on the sheath.

*December 8th.*—Twenty days after the chancres, and two months and a half after contaminating erythematous roseola, and crust on the head. Towards the middle of December, painful points occupying vaguely almost all of the right half of the thorax; difficulty of respiratory movements; sensation of weight of constriction in the sternal region during the night. Almost at the same time cramps of the lower limbs, principally in the calves, running from the popliteal region to the tendo-Achilles.

*January 4th, 1870.*—I observed on this patient, in the right and left costo-sternal region, the existence of very painful periosteal tumors, over which the skin was healthy. They were situated upon the sternal surface of the ribs and of the cartilages, of the size of a pea, and quite hard, and very tender to pressure. They were the centres of painful irradiations which ran through the intercostal spaces, anteriorly and posteriorly.

*January 11th.*—Besides several of the little tumors above referred to, there exists also on the right side of the sternum, at the anterior extremity of the fifth and sixth ribs, the width of four fingers above the right breast, a diffuse periosteal elevation as large as a two-franc piece, very sensible to pressure, over which the skin glides, and which is normal. From this point neuralgic irradiations, especially at night. At the time (fifty-eighth day of the chancres), general health not much altered. Diffuse induration of the prepuce and meatus. Adenopathic inguinal and cervical, confluent erythematous roseola, with some flat papules (proto-iodide).

At the end of January (seventy-eighth day of the chancres), the perio-

toes and neuralgias of the ribs and sternum have completely disappeared after duration of about a month.

The secondary symptoms were grave and obstinate, singular persistence of the roseola mucous patches, general debility, alopecia, nocturnal myalgias, laryngopathies, want of sleep.

We see that in this case the incubation of the consecutive accident was only twenty days, whilst that of the primitive accident was six weeks. It will be noticed that at the time of invasion of the general symptoms, as well as later, that the patient was tormented by myalgias. Could not the nocturnal dyspnoea which he suffered depend, in part at least, on cardiac or diaphragmatic neuralgia? Is it always the case that sternalgias and thoracic neuralgias have been unconnected with its production? Now these painful phenomena which have appeared at the same time as the roseola have coincided with a crop of little periosteal tumors of the ribs and of the sternum. These hard tumors, having no connection with the skin, were seated in the periosteum. They commenced nearly at the same time with the pains, have disappeared without leaving traces, have run a similar course to the pericranial tumors. Thus have they the same pathological and diagnostic significance, and called for the same treatment.

I had observed for a long time the existence of these tumors of the sternum and ribs at the début of the first constitutional accidents of syphilis, when recently I read an article by Dr. Critchley Brodric, (*Madras Med. Press, and Dublin Med. Press*, Nov. 1863), a physician of the East Indies, upon the value of substernal sensibility as a diagnostic of syphilis. After the author, in examining methodically by pressure the sensibility of the sternum, we find generally, towards the lower third of the bone, a spot on which this exploration produces a severe pain, without the attention of the patient having been previously called to any spontaneous pain. In other patients the sensible point exists on a level with the upper third of the sternum, whilst it is not observed on the middle third, M. Brodric thinks that this sensibility is due to a very limited periostitis of moderate intensity.

[To be continued.]

## LEPROSY IN THE WEST INDIES.

THE subject of leprosy in the West Indies, though it has, perhaps, excited less attention than in the East, has always been looked upon with interest—an interest which the reported cures of what was considered an incurable disease by Dr. Beauperthuy by no means served to lessen. It was accordingly suggested that a skilled medical practitioner, whose report would be looked upon as authoritative, should be sent out to report on the malady as seen in Guiana and the West Indies. A report had already been sent in by Dr. Bakewell, Medical Officer of Health for Trinidad, but it was felt that some unprejudiced authority would be more likely to obtain general credence than one who had, however laudably, become in a certain degree a partisan. Accordingly, Dr. Gavin Milroy was nominated by the Royal College of Physicians, and sent out by the Colonial Government, and it is from his report, which now lies before us, that we extract the subject of this notice.

Dr. Milroy appears to have first of all visited British Guiana, near the capital of which is situated the principal leper asylum in the colony. This, at the time of visitation, contained 206 patients in all stages of the malady. Most of these were colored, only one European being found among them, and his case was a doubtful one. The facts here collected tended to establish the belief, already generally entertained, that the disease is not transmissible by ordinary infection. Leprous patients continue to sleep with those who are sound, and even sexual intercourse seems to have no power of communicating the complaint. Hence the belief that it arises from causes dependent on climate or food; and the belief has long prevailed that the extensive use of poor food, especially salted fish, in these parts had something to do with its continuance and spread.

The forms of leprosy seen were of the tuberculated and non-tuberculated kind. In some the anæsthesia had been so strongly marked as to occasion injury to the hands in cooking their victuals, no intelligence being conveyed of the sensation of over-heat even by the burned fingers. Most of the cases seen under the care of Dr. Beauperthuy were in the earlier stages; those well advanced were rejected as unfit for treatment. Dr. Milroy in his inquiries was strongly impressed with the view that in many respects leprosy and scrofula were closely allied, and this idea was strengthened on finding that in both Guiana and the West Indies leprosy went by the name of “king’s evil”—the old name for scrofula in this country. In both



there is marked want of "power" or "tone," with feeble action of the heart, and an exsanguine condition of body. The ulcers, too, resemble those found in scrofulous subjects, and the well-known enlargements of the lymphatic glands in leprosy would probably be considered another point of resemblance. At the same time the spread of scrofulous diseases in Demerara and the West Indies has recently been marked as decidedly on the increase.

Naturally, one of the most important inquiries we can make is as to the contagious character of the malady. On this point a sufficiently large accumulation of evidence has been made to enable us to come to some conclusion. It is true that in many parts of the West Indies and Guiana the belief in the possibility of transmitting leprosy from one individual to another has been entertained, but a strict examination into circumstances tends clearly to the opposite belief. True, certain isolated cases have occurred where direct transmission may have been possible, but the mass of evidence undoubtedly goes to show that leprosy is not capable of communication even by sexual intercourse. It has been supposed that the inoculation of the blood of leprosy patients might be capable of transmitting the malady, but in the case of a medical practitioner who cut his finger in an operation on a leprosy subject, no such unfortunate result followed. He was unable to attend to his wound for a time, and apparently, as a consequence of this, erysipelas and destruction of the parts followed, so that the finger had to be removed, but no constitutional evil resulted.

But if not contagious, how is the malady spread? On that, too, there seems a singular unanimity of opinion, if we may judge by Dr. Milroy's report. If not entirely caused, the malady is greatly favored, by the bad food and unhygienic condition of the lower orders, among whom the disease almost entirely prevails. In Demerara the aboriginal inhabitants, who lead healthier lives than the imported negroes, coolies, or the lower classes of the Creoles, do not suffer. Everywhere in these regions the diet of the poor seems to consist mainly of salted fish—at no time a nutritious kind of food, and even then often inferior in quality. Sometimes a little salted beef or pork is added in the form of soup, but fresh meat is rarely, if ever, tasted. As the salt fish can only be looked upon in the light of a condiment to flavor the other constituents of diet, the negroes seem to favor the highest flavored—*i. e.*, the worst varieties; though when they get the chance they are greedy after fresh meat. Invariably leprosy seems to be

fostered in its onward progress by bad food, and retarded by better quality of diet. However, as matters now stand, there seems to be a difficulty in getting meat in the fresh condition. Sheep are imported into Guiana from New York or Boston, cattle from the Orinoko. Some are raised in Porto Rico, and many more might be so in Dominica. Meanwhile, the business seems neglected, and the poor suffer in consequence. For the same reason milk is not readily attainable; and even the substitution of fresh fish for salt, though apparently easy, is not much carried out.

One great object of Dr. Milroy's mission was an inquiry into the possibility of curing this malady on the plan proposed by Dr. Beauperthuy. This gentleman founded his treatment essentially on the principles already laid down as to the causations of the disease. The first thing to be done was to improve the dietary. Whenever the food has been improved the lepers have improved also, and this, too, without any other medicines being employed. For the means of making such an improvement Dr. Beauperthuy stipulated when he took charge of the trial made in Guiana. Internally he gave one eighth of a grain of corrosive sublimate twice a day, sometimes with a dose of carbonate of soda, and this was continued until the mercury began to show its constitutional effects, when it was replaced by quinine, and latter by iodide of potassium. Unfortunately Dr. Beauperthuy did not live to complete his work, which he seems always to have considered experimental, and not final, so that even his final conclusions were of necessity imperfect. Locally he employed almost solely cashew-nut oil, which was applied to the tubercles or anæsthetic spots. This oil is a powerful counter-irritant, and may give sharp pain. By it the epidermis is removed, and to the raw surface strong lime-juice is applied. This plan of treatment, according to Dr. Milroy, is decidedly encouraging. By it tubercles are removed and anæsthetic spots rendered sensitive. Dr. Milroy, however, decidedly objects to the too prolonged use of mercury internally. Dr. Beauperthuy is no more, but his good deeds live after him, and we cordially endorse Dr. Milroy's warm praise of a man who devoted so much pains to assist a class so proverbially outcast as the leprous.

Dr. Milroy's report also contains some information as to the peculiar malady called the "Yaws," which, however, space forbids us in the meantime to reproduce.—*Editorial—Medical Times and Gazette*, May 31, 1873.

## Epitome of Current Literature.

**The Nature of Hypertrophic Lichen.**—M. Adrien Charpy gives a detailed account of the anatomical formation of this disease as observed by him in two cases.

I. *Non-ulcerated hypertrophic lichen.*—A man, forty years of age, had had for a year two symmetrical patches, about the size of a silver dollar, one on each side of the inter-gluteal groove; projecting like two discs, dry and hard, of a slaty tint, and with a figured surface. They were painless, but annoyed him by the friction. Ointments, baths, and lotions were ineffectually tried; they were then extirpated with the scalpel, and the patient recovered in a few days. After hardening the patches in alcohol the microscopical examination yielded the following result: the derma, rete mucosum, and epithelial layer were noticeably and evenly hypertrophied; the regular enlargement of each papilla caused the figured, mammillated aspect of the patches. The lesion did not extend beyond the skin. Both layers of the derma were involved, but the alteration began in the vascular layer. It consisted of a tolerably abundant cellular increase, but not as great as that of eczema. They were embryonic cells which are found in all tumors and cells. There was the same cellular increase in the papillæ, but less abundant, and fusiform instead of being round. Distended with these new elements the papilla first lengthened, then thickened; but the progressive hypergenesis of the epithelium surrounding it soon compressed and caused it to thin out. There were no sebaceous or sudoriparous glands found which would account for the dryness of the patches. There were but very few blood-vessels in them. The *rete mucosum* had also increased, its layers were multiplied, and its cells had grown young again. The *epithelial* layer varies in thickness, where the pressure had increased the hypergenesis; it formed a thick zone, which protected the subjacent organs.

II. *Ulcerated hypertrophic lichen.* A young man, thirty years of age, had been suffering for two years with a tumefaction of the right foot, uniformly projecting, of a vegetating aspect, mammillated; limited anteriorly by the roots of the toes, laterally by the edges of the plantar arch, and terminating posteriorly by well-defined oblique lines, about two inches in front of the heel. In the front of the foot, especially near the

root of the big toe, where the lesion appeared to have begun, it consisted of warty-like projections, yellow or rather slaty, dry, horny, and having the appearance of the papillar vegetations of elephantiasis; whilst at the apex of the arch the vegetations had become flat and ulcerated, and were of a red color. Finally, the posterior limit was formed by deep and suppurating furrow; the disease was more intense at this point. There was a fetid secretion similar to that of ulcerated tumors. He had but little pain, excepting when walking. The disease was variously diagnosticated, some called it epithelioma, others sarcoma, elephantiasis, or papilloma; but all agreed as to its malignancy and the necessity of its extirpation. It was all removed by abrasion and the actual cautery applied.

The diagnosis was decided by the anatomical examination: it was simply an ulcerated hypertrophic lichen. A more careful analysis of the symptoms would have led to a correct diagnosis. All the constituent portions of the integument were hypertrophied, but the derma and rete mucosum had especially suffered. There was an increased cellular growth of the superficial horizontal layer of the *derma*, especially at the base of the papillæ. Starting from that central point, the neoformation radiates in two opposite directions: descending into the vascular layer it exhausted itself, and ascending into the papillæ it distended them to their apex. However, the majority of the papillæ were narrowed and attenuated, on account of the lateral pressure of the epithelium. There was intense hypergenesis of the *rete mucosum*, similar to venereal vegetations; it was filled with dentated cells. Its development was so great, that it no longer moulded itself in the papillæ, but on the contrary crushed them, and superiorly it no longer presented its regularly undulated form. The epithelial layer was but slightly developed, its existence being incompatible with the morbid activity of the nutrition in the rete mucosum. It was wanting in the ulcerated portions, and the derma was bare in the separating furrow. The glands were as rare as in the preceding case.

*Anatomical Diagnosis.* I. Hypertrophic lichen differs from all the other dermatoses by the disappearance of the glands and the volume of its hypertrophy. It neither has the intense neoplasty, the atrophy of the epithelial layer, nor the presence of vesicles in the midst of the epithelium of eczema. Psoriasis has a squama and not a horny zone, the epithelial hypergenesis is much less marked, and the horizontal layers of the derma are not as much involved. Finally, in ordinary lichen, the neoformation has not a more or less elevated site of election, it

condenses around the hairy follicles, and is almost absent in the epithelial zones.

II. Hypertrophic lichen resembles ordinary papilloma by the disappearance of the glands, its large development, and its limitation; it differs from it by its non-pediculization. It differs from the epithelial papillomæ, corns and warts; the rete mucosum being but slightly developed in the latter, whilst the epithelial layer is excessively so. In the congenital papilloma there is no hypertrophy of the epithelium, but the conjunctival tissue representing the papillæ is very extensive and very much like the normal tissue. The epithelio-mucous papilloma venereal vegetations have a most striking analogy, especially with ulcerated lichen; however, the conjunctival proliferation is less abundant, the papillæ more deformed, and there is such an exuberant development of the rete mucosum, that the characteristic basis of the lesion is in it.

III. Non-ulcerated hypertrophic lichen differs from the ulcerated, in that the conjunctival proliferation is much more intense in the latter, that it is almost entirely composed of younger elements, and it has but slightly radiated into the deep horizontal layer of the derma—the hyperplasty of the epithelial cells of the rete mucosum is much more abundant—and that as a necessary consequence the formation of the horny layers is much lessened. All these facts demonstrate a more intense degree of irritation in the tissue which is about ulcerating.

*Nature of hypertrophic lichen.*—It is not an inflammation, for it is self-limited, accompanied with a marked hypertrophy of an organ without destroying it, with a progressive course, or more or less stationary, without tendency towards resolution or cicatrization, and finally resisting all the ordinary treatment of cutaneous inflammations. It is a *tumor* which is proven by the concordance of its anatomical and clinical history, thus: its genesis by friction or spontaneously, its limitation, its slow progress with an indefinite evolution, susceptible of assuming an invading form when irritated, and its resistance to all treatment excepting its destruction by the cautery or scalpel. Again, by its marked hypertrophic growth, the development of its horny layers, the warty-like complications and the destruction of the glands. This tumor being formed by the increase of all the layers of the skin, and with its preservation is a papilloma. Only distinguishable from the other forms of papilloma by its non-pediculization. It extends, spreads on the surface, whilst the others increase in height: in a word, he would say that: HYPERTROPHIC LICHEN IS A FLAT PAPILOMA.—*Annales de Dermatologie et de Syphiligraphie*, No. I. 1873.

**The Etiology of Typhus.**—Professor Chauffard, at the meeting of the Académie de Médecine, October 15th, developed some original views on the “Etiology of Exanthematic Typhus.” He observed that all classical works on the subject declared that typhus may be voluntarily produced, it sufficing for large agglomerations of men to be exposed to want and great physical and moral suffering. Over-crowding, defective ventilation and cleanliness, insufficient or improper food, cold, fatigue, depression from defeat, and the too superficial internment of the dead, have been deemed sufficient explanations of the occurrence of typhus in camps, armies, and besieged cities. But without denying the considerable part such causes may play in its generation, the history of the late war shows that other factors must be taken into consideration. For did not all these etiological conditions exist in the full potency during the sieges of Metz and Paris? and yet typhus, which was so naturally expected, did not prevail in these cities. The various diseases which did afflict both their civil and military population were all characterized by one common feature, viz, an adynamic, putrid, ataxic, or typhoid condition. The slight vital resistance that existed was shown by the ravages which were caused by purulent infection; but of exanthematic typhus “not a single case of the disease was met with, either in its complete form or in its irregular forms, or in the milder form termed relapsing or abortive typhus.” At Metz, where over-crowding, wretchedness, and famine prevailed to a greater extent than in Paris, typhus did not prevail, as we know from very detailed medical histories by observers who were present during the siege, and by the evidence after it was raised of such distinguished Germans as Frerichs, Niemeyer, and Langenbeck. Still more surprising is the fact that while the besieged city was spared by typhus, this disease committed great ravages amongst its assailants, who were victorious, well-provisioned, and widely disseminated.

Other essential and major etiological conditions must then be present, and these Mr. Chauffard believes will be found in circumstances connected with race, soil, and climate. He illustrated his views by narrating the progress and development of typhus, which attended the invasions of 1814 and 1815, and the return of the troops from the Crimea in 1855 and 1856. The fever contracted in foreign lands was only introduced into France by importation, and the epidemics thus introduced into a soil that was not their own speedily became extinguished, not finding there the elements of fecundity and renewal provided for them elsewhere. “There are, then, in our race, climate, and soil, conditions which do not favor the acclimatization of typhus among

us." If it be objected that there are observed slight epidemics in prisons and the hulks, and other local epidemics met with in Algeria, it may be replied that it would be very difficult to show that most of these were not due to importation, while in many of these occurrences it is possible that true typhus has been confounded with typhoid fever of unusual form, cerebro-spinal meningitis, etc.

The general conclusions, then, at which M. Chauffard arrives are: (1) that we should not limit the occasional causes of typhus to the deleterious effects of wretchedness and over-crowding, and that by means of these factors alone we could not produce the disease; (2) that race and soil supply the essential and major conditions of the etiology; and (3) that typhus, like cholera, should be ranged among epidemic diseases having an exotic origin, and which, appearing on the soil of France only by importation, are unable to acclimatize themselves when so imported. M. Chauffard develops these points in the *Bulletin* of the Academy of the above date at considerable length, and with great knowledge of the history of the disease he is treating of.—*Medical Times and Gazette*, November, 1872.

**Alterations of the Nervous System of the Great Sympathetic in cases of Constitutional Syphilis.**—Dr. Pettrow, on examining portions of the plexus of the great sympathetic which he had taken (ten to twenty-four hours after death) from the bodies of individuals affected with acquired constitutional syphilis, has stated two sorts of pathological changes:—1. Modifications of the protoplasm of nervous cells which become loaded with brilliant pigmentary corpuscles, increasing with the age of the disease, and often accompanied by colloid transformation of the cells; the cells of the endothelium surrounding the nervous cells frequently undergo the same gelatiniform transformation and cannot then be distinguished from the nervous cells. These changes can exist without the interstitial connective tissue being impaired. 2. Modifications of the interstitial connective tissue with hyperplasia of the fibre, constituting large irregular fasciculi, which push aside and compress the nervous cells and fibres. The cells are then atrophied, irregular and dotted with pigment, whilst the fibres are flattened, and their myelin shows slight granulations.—*Virchow's Archiv*, Band 57, Heft 1, 1873.

## Therapeutical Notes.

**Treatment of Cystitis.**—In an inaugural thesis recently published by Dr. Pouliot, and in which the author especially supports the views and methods of treatment adopted by Dr. Guyon, of Necker Hospital, the following more important conclusions are stated by the author:—"In cystitis, and especially the acute form, the inflammation is often limited to, or at least is more intense at, the neck of the bladder. The employment of nitrate of silver should be preferred to other means for treatment of the local inflammation; the substance is especially successful in deep chronic urethritis with cystitis of the cervix, provided it be applied to the very situation which it is intended to modify, by means of a special instrument. In chronic cystitis of the cervix, the method of instillations performed by means of Dr. Guyon's apparatus should be preferred to the use of the porte-caustique, because it is more easily practised, affords the same results, and does not expose the patient to any risk. This method is especially useful in acute cystitis of the cervix, particularly when the inflammation is well limited to the neck of the bladder, and does not extend very deep.—*The Lancet*, April 26, 1873.

**Treatment of Contagious Charbon.**—In the treatment of this disease, Dr. Wasservogl advocates the employment of local means, as well in those instances where there exists infection of the whole organism, as in those where the general disorder is only symptomatic of the local affection, or simply depends on sympathetic phenomena. He recommends cauterizations, by means of the concentrated mineral acids or actual cauteries, combined, when the disease persists, with incisions, intended to carry the caustics deeper into the flesh. During the first days of treatment, dressings with carbolic and hot aromatic fomentations must be employed, whilst a general antiseptic and tonic treatment is instituted. The author quotes a case of successful employment of this mode of treatment in a pregnant woman, who, after handling the body of a diseased ox, was affected with two large carbuncular eschars on the left cheek.—*The Lancet*, April 26, 1873.

**Local Use of Chloral Hydr**  
**Ulcerated Buboës.**—In an article



ber of *Giornale Italiano delle Malattie Veneree*, Dr. de Paoli gives his experience of the local action of chloral hydrate in the above cases, such as was exhibited in the Clinique for venereal and skin diseases of Bologna. Four cases are related in which large ulcerated buboes were highly benefited in their last stage by the application of a solution of chloral hydrate (10 parts of chloral to 30 of water). The healing process was remarkably regulated and hastened by the application. The author thinks that in all sores with abundant suppuration and want of tone chloral is of the greatest use, and that its employment may be beneficially extended, as a slightly exciting and antiseptic agent, to suppurating wounds, and especially gunshot wounds. He states that Professor Gamberini has applied the same solution with marked results to the soft ulcers of prostitutes, especially during the later period of cicatrization, the virulent power and suppuration of the sores being considerably diminished, whilst auto-inoculation of the sores in other parts was not observed in the patients treated. He suggests that chloral hydrate may be a good substitute in certain cases for nitrate of silver and iodoform, and concludes, in summing up his paper, "that it diminishes the virulence of sores, has the advantage of not irritating the inguinal glands, and removes the offensive smell which proceeds from ulcers, especially those of the female genitals."

**Pathogenic Influence on the Skin of Bromide of Potassium Employed Internally.**—Dr. J. Neumann has recently investigated this subject. In doing so he recalls the observations of Voisin, of Paris, and Mitchell, of Philadelphia, according to whom the employment of bromide of potassium in weak doses brings on eruptions similar to acne, with itching and the consecutive formation of indurated tubercles; whilst the prolonged use of the substance gives rise to the production of red tumors, which often become sore, of carbuncles, anthrax, eczema, and nettlerash. Dr. Neumann states that, for his own part, he has observed eruptions very much like molluscoid acne coming on in successive outbreaks, and, in another case, a carbuncular eruption consisting of infiltrated tumors, with considerable loss of substance in the centre. The author inclines to think that the bromine passes into the blood, and thence into the various glands of the skin, and he accounts thus for the production of the eruption. It is known that the presence of bromide of potassium has been observed in urine, saliva, and in secretions of the skin.—*Wiener Med. Wochenschrift*, No. 6, 173.

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**Rodent Cancer Successfully treated by Excision and Cauterization.**—Cases of this disease, known under the names of Jacob's ulcer, cancrroid ulcer, rodent ulcer or cancer, reported by George Lawson and J. W. Hulke, were treated by extirpation with the knife, the actual cautery to check hemorrhage, and subsequently the application of chloride of zinc paste. This treatment is used when the superficial extent of the ulcer is not very large, when restricted to the skin, and when not extending into the mouth, nose, or orbit; but when the disease has spread into one of these cavities, when bones are eroded, or when its superficial dimensions are great, then an operation is not advisable. The danger in this treatment is twofold; that common to every large operation performed on a person in the decline of life, and that which arises from the situation of the ulcer.

These dangers are much reduced if unnecessary hemorrhage is avoided, the suppurating edges and surface of the wound are kept scrupulously clean and sweet with antiseptic dressing, and if the patient's strength is well supported and pain kept down by opium. The situation of the ulcer is most dangerous when the orbit is implicated, owing to the nearness of the brain; but this treatment may even then be used safely, for the hot iron applied to the surface of the bone kills it much less deeply than it is generally supposed, and the chloride of zinc paste can be safely applied to the roof of the orbit even when the dura mater is exposed. Pathologists who look upon the rodent ulcer as a true cancer, admit that it is far more amenable to treatment than any other form of cancer.—*Trans. Clin. Soc., Lond., 1872.*

**Syphilitic Facial Neuralgia cured by Iodide of Potassium.**—Dr. Francis E. Anstie states that in this case the neuralgia had existed prior to the attack of syphilis, was cured, and returned with the syphilitic infection, and was again cured by the administration of iodide of potassium; the same side being involved which had been previously affected with the hemicrania. The recovery of the senses of taste and smell (which had been lost) closely accompanied the second removal of the neuralgic pain and the anæsthesia, while the paralysis of the ocular muscles remained. The condition of the fifth nerve being closely connected with the sense of taste, it now becomes apparent that it is so with the sense of smell, and reminds us of Bernard's experiments, where he destroyed the olfactory nerves without impairing the sense of smell. This case also illustrates the close connection between an anæsthetic condition of sensory nerves to outward impressions, and the presence in them of neuralgic pain, which Dr. Anstie thinks is the expression of a half-paralytic condition in those nerves.—*Trans. Clin. Soc., Lond., 1872.*

**Urethral Hæmorrhoids.**—A disease described by Dr. Rich-  
et, who believes it is not uncommon. Hæmorrhoidal vegetation  
being present at the opening of the urethra, accompanied with  
intense pain from the passage of urine over the sensitive and  
ulcerated growths, which may cause spasmodic urethral con-  
tractions as seen in chronic cases. The painful symptoms  
resulting from the contraction and hypertrophy of the urethra  
are not removed by mere excision of the growths, but forcible  
urethral dilatation rarely fails to give relief.—*Gaz. des Hôp.*,  
*Jan. 2, 1872.*

**Onychia Maligna treated by Nitrate of Lead.**—Prof.  
Vanzetti, of Padua, has used successfully Dr. Moerloose's  
nitrate of lead treatment of onychia maligna. Excising the  
excrescence of the nail to the level of the ulcer, he covers it  
with nitrate of lead, and envelops the part with a linen com-  
press. A thick, shiny crust forms, adhering to the margin of  
the ulcer, which falls off after a few days, the wound quickly  
cicatrizing.—*Abeille Médicale.*

**Lupus Erythematosus treated with Woodhall Water.**  
—T. W. Nunn reports two cases, one a complete cure and the  
other greatly improved under this treatment.—*Trans. Clin.*  
*Soc., Lond., 1872.*

## About Books.

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS, DELIVERED AT UNIVERSITY COLLEGE HOSPITAL. By SIR HENRY THOMPSON, Surgeon-Extraordinary to H. M. the King of the Belgians, etc., etc. Third edition. London: J. & A. Churchill. 1873.

THESE lectures constitute the course delivered every year, with such modifications and additions as increasing experience demands. The present edition contains the course delivered at "University College Hospital, in the session of 1872-3, and comprises, therefore, all the most recent alterations, as well as two lectures not in the previous editions." The aim of the author, "to produce in the smallest possible compass an epitome of practical knowledge concerning the nature and treatment of the diseases which form the subject of the work, has been admirably accomplished. The additional lectures are on "Diseases of the Bladder, Paralysis, Atony, Juvenile Incontinence, Tumors, Hæmaturia, and Renal Calculus." The impress of the great practical surgeon is manifest on every page of the work. While he recognizes the value of the microscope as an aid in the surgeon's hands, he advises his readers not to let it obscure to them "those broad features of the case which are to be determined by the unassisted eye and touch, as applied to the body and to the urinary secretion itself, through the means of reagents." In cases where it is essential to an "absolute diagnosis" to avoid admixture of the urine with products of the bladder, Sir Henry gives a method which, he states, "has never to my knowledge been recommended or practised, and which I have systematized for myself. When it is essential to my purpose to obtain an absolutely pure specimen of the renal secretion, I pass a soft gum catheter of medium size into the bladder, the patient standing, draw off all the urine, carefully wash out the viscus by repeated small injections of warm water, and then permit the urine to pass, as it will do, *guttatim*, into a test-tube, or rather a small glass vessel, for the purpose of examination. The bladder ceases for a time to be a reservoir; it does not expand, but is contracted round the catheter, and the urine percolates from the ureters direct, you having virtually, indeed, just lengthened the ureter as far as to your glass. And now you have a specimen which, for appreciating albumen, for determining reaction, and for freedom from vesical pus, and even blood, and from cell-growths of vesical origin, is of the greatest value, and has often furnished me with the only data previously wanting to accomplish an exact diagnosis." The lectures are full of those practical details which are of so much service in the daily routine of practice. It is a most admirable contribution to urinary surgery.

**THE PRACTICE OF SURGERY.** By THOMAS BRYANT, F.R.C.S., Surgeon to Guy's Hospital. With five hundred and seven illustrations. 8vo, pp. 984. Philadelphia: Henry C. Lea. 1873.

WHATEVER may be the shortcomings of "The Practice of Surgery," by Mr. Bryant, it must be fairly admitted that in many essentials it is a very valuable practical contribution to our art. The work is a manual of the practice of surgery, and claims to deal only with essentials and principles, and, while the author has scarcely omitted any subject which comes within the province of the general surgeon, he very properly recognizes the specialties of the eye, ear, and dental surgery, and leaves their treatment to those who devote themselves to these branches. It is to be hoped that hereafter the treatment of recognized specialties in medicine will be left to the specialists. Many works, otherwise excellent, are marred by the republication of obsolete notions. The work is a good practical guide to the student and surgeon. It is rich in original material. It is well illustrated from original drawings—"out of the five hundred engravings, four hundred are original—taken either from preparations or drawings in the Guy's Hospital Museum, or copied from nature." The work is beyond doubt a good contribution to surgery, and will be appreciated by those capable of judging of its merits.

**FIRST ANNUAL REPORT OF THE DISPENSARY FOR SKIN DISEASES.** Boston: JOHN WILSON & SON. Pamphlet. 1873.

THE introduction states that "this institution, which went into operation early in the year 1872, has reached the point where it seems desirable that its existence, work, and purposes should be more generally known, and with this end in view presents its first annual report to the people of Boston." The report is an exceedingly satisfactory one. Of the whole number of persons treated, there were:—Men, 390; male children, 41; women, 362; female children, 80. Medicines were, as a rule, furnished gratis. Among the cases treated many were of a very interesting character. The foundation and success of the dispensary is due to the ability and indomitable perseverance of Dr. Edward Wigglesworth, Jr. None but those who have been interested in the establishment of special charities are aware of the difficulties encountered in maintaining these excellent fountains of relief to the suffering poor. There can be no doubt that the success of this dispensary, during its first year, may be attributed to the well-known ability and special fitness for the work of Dr. Wigglesworth, the physician in charge. We can only hope that the means will be furnished for the establishment of a special hospital in connection with the dispensary.

**SECOND ANNUAL REPORT OF THE DISPENSARY FOR SKIN DISEASES.** Philadelphia: King & Baird. 1873. Pamphlet.

THIS Dispensary for Skin Diseases has now entered on its third year of usefulness. The report before us is an exceedingly satisfactory one. The

dispensary is under the professional control of Dr. Louis A. Duhring, who is too well known as a dermatologist to need any complimentary words at our hands. It may not be out of place to remark that the advantages of a special dispensary for skin diseases can only be appreciated by those who have seen the great practical benefits accruing from these institutions in foreign countries. In New York we have no such charity. It is true we had one for a short time, but it succumbed from the want of interest displayed by the profession, and, perhaps, the want of ability on the part of those who took charge. There is no class of diseases that need more earnest and more constant attention than skin diseases. This is so true that Hebra once remarked "that he felt out of practice if he remained away from his clinic for a few weeks' vacation." Let the special dispensaries be supported—they are invaluable as charities to the profession as well as the public.

**CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE U. S. PHARMACOPOEIA. A MANUAL ON THE GENERAL PRINCIPLES OF THE SCIENCE, AND THEIR APPLICATION TO MEDICINE AND PHARMACY.** By JOHN ATTFIELD, Ph.D., F.C.S., etc., etc. Fifth edition. Revised from the fourth (English) edition by the author. Philadelphia: Henry C. Lea. 1873.

It is refreshing to take up a work that really covers the ground claimed in the title-page and preface. The excellent manual before us does this in the most satisfactory manner. The additions that are especially interesting to American readers were originally made in response to a call from professional friends in the United States, in 1870. A fourth edition was presented to English readers in the autumn of 1872, and on that is now founded this fifth edition for American students. The present edition presents fairly the science of chemistry in its latest developments—also a rewritten chapter on the general principles of chemical philosophy. It is the very best work that can be placed in the hands of the American student and practitioner of medicine or pharmacy.

**A GUIDE TO URINARY ANALYSIS, FOR THE USE OF PHYSICIANS AND STUDENTS.** By H. G. PIFFARD, M.D. New York: Wm. Wood & Co. 1873.

This is an octavo volume of eighty-eight pages, large type, heavily leaded, printed on excellent paper, and nicely bound in cloth. Of the literary and scientific merits of the work little can be said in its favor. The author "ventures" a feeble excuse for the "production"—the hope that it "may encourage" the more frequent and more thorough investigation of the urinary secretion. Very few students or practitioners are tempted to scientific labor or investigation through the commonplace efforts of men who have no special fitness for the work they undertake to perform.



# THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY.

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Original Communications.

ON SCLERODERMA.

BY ARTHUR VAN HARLINGEN, M.D.,

*Assistant Physician to the Dispensary for Skin Diseases, Philadelphia.*

SCLERODERMA is an affection which of late years has excited considerable interest, as well on account of its comparative rarity as the very striking character of the appearances which it presents. Whoever has seen a case has had his attention instantly attracted by the rigid aspect of the skin, the immobility of the affected parts, their hardness, and frequently their change of color. It is the obviousness of the disease, perhaps, which has caused it to receive so much attention; and yet, so far, this attention has not led to much practical result.

One reason for this, perhaps, has been that the disease itself not being fatal, the only opportunity for investigating its anatomy was presented where the patient died of some intercurrent disorder. This event has happened so seldom that there have been scarcely half a dozen post-mortem examinations recorded. It is not surprising, under these circumstances, that several theories of the nature of scleroderma should have been brought forward, which tend to connect it with diseases similar in some respects but widely different in others.

It is my purpose, in the following pages, to point out the clinical features of this disease; and the attempt will be made to

show its distinctive character in opposition to those views which would connect it with other affections more or less similar.

I shall present as my text the case of a negro, about fifty years of age, the first of his race in whom the disease is reported to have occurred.\* This individual displayed the affection in a quite typical form, and has been under observation for nearly two years. When I first saw him the disease had existed about twelve months; previous to this he had, excepting occasional rheumatic attacks, always enjoyed good health.

The onset of the scleroderma was marked by burning and stinging pains in the back and extremities, which were shortly followed by hardening of the skin over the fore-arms. There was no fever at this time nor subsequently, but the induration slowly progressed in extent and intensity month after month. The patient had been a laborer on the railroad, accustomed to exposure in all kinds of weather and to the use of the shovel and pick. As the disease progressed he was obliged to give up work, not from any feebleness or pain, but simply because his movements were hampered, and finally almost prevented as to the upper extremities, by the immobility of the integument. Gradually the hardening affected the skin over various parts of the body, till the unfortunate man became unable to perform any acts beyond those requiring the simplest movements. At the end of a year he could not change his clothes, but had to be dressed and undressed like an infant, presenting the aspect of a person in perfect health as regards most of his bodily functions, but bound hand and foot, as it were, by the disorder with which he was afflicted. Perhaps the expression hand and foot is too general, for one of the peculiarities of the case was that the disease did not affect the lower extremities at all, but was confined to the head, body, and arms.

When I first examined him, the indurated condition of the skin had reached its fullest development. Scarcely any portion of the head, trunk, or upper extremities was free from the disease, although it was much less marked in some places than

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\* I am indebted to Dr. Budd, of Mt. Holly, N. J., in whose practice this case occurred, for the opportunity of placing it on record.

in others. The fore-arms, which were symmetrical in their condition, appeared to be the seat of most decided hardening. Here the skin felt like the hide of an elephant; it was hard, rigid, and dry. In fact, these limbs seemed as if carved out of wood. The hands and fingers were not so excessively affected, but the latter were bent like claws and nearly immovable. Over the knuckles small points of incipient ulceration were apparent, showing where the pressure of the bones had been greatest against the inelastic integument. The induration, so marked on the hands and fore-arms, became much less so toward the upper part of the arms; while around the caps of the shoulders and in the axillary regions little or no hardness could be detected. The posterior surface of the neck and trunk was decidedly though not intensely indurated, while anteriorly the neck was but slightly affected, the chest and abdomen being much more so. Below, the sclerosed skin faded gradually into the normal integument about the inguinal region and over the flanks and buttocks. The scalp and face were slightly hardened—the latter sufficiently so to cause a fixed, immobile expression of countenance—and the patient was unable to pucker his lips into a proper form for whistling. Over the fore-arms, where the disease existed in its most intense stage, the skin was dry and scaly, and the patient was accustomed to lubricate these parts with fats of various kinds to relieve the tension, and if possible render them more supple.

Of course, with such a condition existing, it was evident that the functions of the sudoriparous and sebiparous glands were arrested. In other localities the induration did not seem to have affected these glands, for examination (carried on while the thermometer stood at 90°) showed abundant secretion. Sensibility, though slightly diminished, was nowhere very decidedly so, while sensations of heat and cold were everywhere acutely perceived.

There could be no doubt but that considerable alteration in the color of the skin had taken place. The patient assured me—and his statement was confirmed by one of his fellow-laborers—that his color was formerly light brown; at the time of observation, however, this was very much darker, in many

places nearly black. The depth of color did not seem to depend on intensity of induration, for the darkest parts were by no means those where the disease was most marked.

A peculiar mottling of the skin was observed in some places: the fore-arms and abdomen were thus marked in patches of several inches' area. It is difficult to describe this mottling accurately; perhaps the general effect, as seen at a glance, might be compared to that which would be produced by sprinkling some decolorizing fluid over the surface by the shake of a brush. It consisted of small, well-defined spots of more or less decolorized skin, occasionally coalescing into patches. In some places the spots were very light brown, in others grayish, or pearly white. Excepting in want of pigment, these spots differed in no respect from the skin immediately surrounding. On the fore-arm, the skin of these patches was thick and hard, on the face and abdomen softer. Where the white patches were largest, one could frequently distinguish black points corresponding to the openings of the sebaceous follicles, and evidently indicating a very decided pigmentation of their epithelial lining. In my inspection of the patient I was struck by this mottled appearance, but after careful examination, failed to make out any connection between it and the sclerodermic condition; I note it, however, as a curious accessory to the general appearance. I should add, that the hairs, although somewhat thinly scattered over the various parts of the body, presented no abnormality save in the fore-arms, where their growth seemed entirely suppressed. Through all his skin-trouble the patient's general health continued very good.

I had an opportunity of examining him again a year and a half later, when little or no change was found to have taken place in his condition. The skin of the face seemed harder, that of the chest less so, but there was in reality but little difference.

The foregoing may be considered a typical case of scleroderma; analyzing its chief clinical features, we get the following result: *Hardness*. The skin was hard everywhere; like leather, hide, or wood. *Diffusion*. The affection was diffused: not limited to one locality, but extending over a large surface;

it had no distinct boundary, but faded into the natural integument. *Symmetry.* It was symmetrical: both sides were attacked simultaneously, and affected to the same degree; and it was confined to the upper half of the body. *Color.* There was decided pigmentation: with the exception of the mottled areas alluded to, the tint of the skin was uniformly darker. *No fever.* There was entire absence, so far as the patient could remember, of any feverish symptoms accompanying the attack. *Edema.* There was no swelling or cedema of the parts affected. *Slowness of attack.* The disease spread slowly, and did not attain its height for some months. *Boundary.* It had no distinct boundary or line of demarcation from the healthy skin, but faded into it imperceptibly at all points; it was diffused over nearly the whole surface of the upper half of the body. *Non-elevation.* The diseased portion was nowhere raised above the general surface, and contained no tubercles or ulcers of any kind, save the small incipient ones over the knuckles resulting from pressure. *Temperature.* Although the temperature was not taken with the thermometer, yet there was no reason to believe that the indurated skin differed in this respect from the more normal integument. *Sensibility.* The sensibility of the skin was unaffected, except in the most intensely sclerosed parts, and even there very slightly so. *Glands.* The glands were nearly unaffected; only in the most markedly indurated parts of the skin, were their functions interfered with: the same may be said of the hairs. *Chronicity.* The course of the disease was decidedly chronic: up to the date of latest note it had run on nearly unchanged for two and a half years.

So much for the case above given; now let us compare it with those reported by other observers. Of these, I have collected references to some seventy-nine. As these references are scattered through many journals, I place them together at the end of this article to aid any one who may be disposed to look up the original papers. The list includes all the cases which could be found reported, under the various names of sclerema, scleriosis, scleroderma, sclerodermia, sclero-stenosis, sclerema-adultorum, sclerosis-dermatos, teleo-sclerosis-rheumatica, cutis tensa chronica, chorionitis, &c., &c.

I do not wish to seem to endorse these seventy-nine cases as cases of scleroderma—far from it; my object in writing this paper is in part to distinguish some of these cases from those of the disease under consideration. However, all cases reported under the name of scleroderma, or its synonyms, are there to be found, and from that list I have selected for comparison those reported by the following writers, as the most accurately noted ones accessible to me.

Rilliet (2 cases), Gillette, Henke, Bouchut, Thirial (3 cases), Arnold (3 cases), Curran, Fagge (2 cases), Barton, Day, Förster, Köhler, Auspitz, Arning, Guillot, Nordt, Forget, McDonnel, Fieber, Pastureaud, and Wilson.

These twenty-eight cases, including my own, are I think a sufficient number from which to generalize; and I shall now give the result of their analysis.

*Sex.*—In this respect my case was among the minority, since the greater number by far of all reported cases of scleroderma have occurred in women. In the twenty-eight cases analyzed, twenty were females, while only eight were males.

*Age.*—Scleroderma may occur at any age, but perhaps it is more usual in the period of early and middle adult life.

*Previous Health and Predisposing Causes.*—The previous health of most patients has been reported as fair; some, however, had been wasted by privation or exhausting disease, though this was only the case in one or two instances. Several had suffered from more or less frequent attacks of rheumatism, and in quite a number of patients such attacks had immediately preceded the appearance of the scleroderma. This fact would seem to indicate some connection of cause and effect between the two diseases, but sufficient observations have not yet been made to warrant any conclusions in this respect. Exposure to wet and cold, and in some females the sudden cessation of the menstrual discharge from emotional or other causes, have seemed to predispose to the attack of scleroderma. It must be admitted, after all, that in most cases no cause for the attack could be ascertained.

*Hardening of the Skin.*—The induration, which is so marked a symptom of the affection under consideration, is variously

described in different cases, and writers seem to vie with one another in their attempts to express vividly the peculiar sensations offered to the sight and touch.

In some cases the skin is described as being "of stony hardness," "hard as a board," "feeling like a frozen corpse without the sensation of cold," etc. In other cases the skin is compared to "brawn" or "leather." Adherence of the skin to subjacent tissues is not uncommon—hide-bound, perfectly immovable, are the expressions used. In my own case the skin of the fore-arms was thus bound down, and it was this condition to which I referred, in remarking that these limbs seemed as if carved out of wood. It should be added that the underlying muscles are generally more or less wasted, particularly those of the limbs.

*Diffusion and Symmetry.*—One of the most distinctive characteristics of scleroderma is symmetry and diffusion, as distinguished from localization. Commencing, as it most generally did in the cases analyzed, on the back of the neck, the disease spread equally on either side of the median line; or, when it began in the limbs, usually both were attacked at once. The surface covered was almost invariably large; those cases in which the disease seemed to tend toward localization were doubtful as regards their other relations to typical scleroderma.

A point which I wish especially to insist upon under this head is, that no distinct boundary existed to the areas of indurated skin. This is a characteristic of scleroderma which is particularly worth noting, as it serves to aid in its diagnosis in many cases. At every point the hardened integument, in the analyzed cases, faded imperceptibly into normal skin.

*Color.*—The color of the affected skin varied much in different cases. In about one-half, decided pigmentation in various degrees existed, while in the remaining cases the skin either retained its normal tint or became pale, yellowish, or waxy in color. It was observed in several cases, including my own, that the pigmentation was much more decided in the immediate neighborhood of the sebaceous follicles, whose epithelium was doubtless the seat of such deposit. It was also noted, in a

certain number of cases, that the appearance of spots or patches of pigmentation at various points preceded and announced the induration of the skin in those localities.

*No fever.*—Neither fever nor inflammatory symptoms of any kind ushered in, accompanied, or followed the disease in any typical case, and where such symptoms were noticed it was generally found that the case was a doubtful one as to its resemblance to scleroderma in other respects.

*Edema.*—Edema was noticed in some cases, but usually in those least typical in character, and frequently without bearing any direct relation to the scleroderma. In connection with this it should be mentioned that in several cases œdema of the hands or feet was noticed, and seemed to be dependent upon interference with the circulation in those extremities produced by the constriction of hardened skin above.

*Rapidity of attack.*—The rapidity with which the disease attacked and spread over the skin varied greatly in different cases. In some a few days sufficed to bring a large portion of the surface into an indurated condition, while in others the onset was so insidious that the first intimation the patient had of his trouble was a change of color in the affected parts. I confess that it is difficult to reconcile the widely differing accounts of this feature of scleroderma, but I am inclined to believe that the tendency is generally toward a slowly progressive hardening rather than a rapid change.

*Non-elevation, &c.*—In no case was there any marked elevation of the indurated skin above the level of the surrounding and unaffected parts. In regard to ulceration, it may be said that, where the tightened skin plays over prominent bony points, as the knuckles, a tendency to ulceration is often observed. Ulcers found under any other circumstances must owe their origin to some other cause than that which produces hardening of the skin and the other essential features of scleroderma. In fact, I think we are warranted in excluding from the category of cases of this disease those in which ulceration plays more than an accidental and secondary part.

It is the same with regard to elevations or tubercles of any kind. Nothing of the sort was found in typical cases, although



some (or at least one—Rasmussen's) not included in those here analyzed were said to have displayed tubercular elevations. There is something so unusual and out of character in the appearance of nodular or similar elevations, that they must be looked upon with great suspicion when occurring in cases of so-called scleroderma.

*Temperature.*—The temperature of the affected parts was in most cases very little altered. In a few it seemed somewhat lowered, but never increased. This in fact is in accordance with what we know of the disease, for it has nothing of an acute inflammatory character in connection with its clinical history.

*Sensibility.*—Cutaneous sensibility was most usually unaffected; in a few cases anæsthesia or hyperæsthesia was noticed as seeming to exist to a limited extent.

*Glands and Hairs.*—The sudoriparous and sebiparous glands were usually unaffected, excepting in parts where the induration had progressed to a very marked degree. Only in one or two cases (including my own) their secretion was noted as having apparently ceased; and then only over a limited area. The hairs were usually unaltered, but in a few cases they were said to have been diminished in number, short, dry, and lustreless.

*Chronicity.*—Scleroderma runs a course decidedly chronic in its duration; many cases having been under observation for years with little or no change either toward amelioration or otherwise, and this, under the persistent use of the most decided and varied treatment. On the other hand, the disease has sometimes slowly disappeared without seeming to have been in any way affected by medication. Those cases in which recovery was said to have taken place in a few days or weeks are exceptional, and open to the same suspicion as those in which the disease was limited in extent, accompanied by ulceration or inflammatory symptoms, or where the boundary was raised and marked by tubercles or nodules.

*Co-existent affections.*—The presence of scleroderma does not necessarily preclude the co-existence of other affections; in several cases acne, comedones, eczema, or pruritus, were, one or the other, found associated with the disease under consideration, and in the same localities.

*Non-fatal.*—Scleroderma is in itself not a fatal affection. In those few cases where death occurred while the patient was under observation, it was usually from some intercurrent disease, totally unconnected with the scleroderma. It is true that in one case death was hastened by the extremely inflexible condition of the facial integument, which interfered greatly with deglutition, while in some others respiration was much impeded through immobility of the thoracic walls.

*Anatomical characters.*—The above picture of the clinical features of scleroderma would be incomplete without the addition of its anatomical characters. These, so far as they have been determined by microscopic examination of the skin in the few cases in which such examination has been made, are as follows:—*Epidermis.* Unchanged, excepting that a deposit of pigment is usually found in the lower layers, or more generally in the rete. *Papillæ and corium.* The papillæ and corium seemed to be the principal seat of pathological change; all their elements being sometimes increased in amount. It may be said that the principal feature in this change *was* the increase in amount of white fibrous and elastic tissue. Bundles of white fibrous tissue were in some cases observed, intermixed with curling elastic fibres, and traversed here and there by fasciculi, broader and larger than natural, of involuntary muscular fibre. *Subcutaneous connective tissue.* This was generally pretty well deprived of fat and sometimes converted into a structure resembling the corium. The fat-cells themselves were more or less shrunken, had lost their rounded form and showed nuclei plainly. In some cases the process had gone on so far that the loose, meshy, connective tissue was converted into a firm compact mass, while in others it became a dense fibrous tissue, abundant in cells.

*Glands.* The glands were generally unaffected, or contained a deposit of granular pigment in their walls. In one case the sudoriparous glands were drawn out, so that sections of single portions of them were removed, and the intervening space filled with fibrillated connective tissue. In another, the convoluted tubes were subjected to such pressure that they were crowded into spaces too small for them, and became oval—indicating a considerable amount of outside pressure from the

hypertrophied fibrous tissue, but no change in the glands themselves. This agrees with what has been observed of the unchanged performance of the functions of these glands, excepting where the induration was most intense and of longest duration, and where we may suppose that they were practically obliterated by outside pressure. *Nerves.* The nerves were usually present and unaltered, but in one case were said to have been entirely covered by the increase of connective tissue.

The above analysis gives, it is believed, a pretty fair idea of the characteristic features of scleroderma, as set forth in the best known and most accurately reported cases. That many cases reported as coming under this head differ widely in some of their details from those above mentioned, I freely admit; but maintain, at the same time, that the analysis given represents the affection in all its essentials; so that, whatever case varies greatly from the type in these respects must be regarded with suspicion. I shall conclude this part of my subject by proposing the following definition of scleroderma based on the analysis just given.

*Scleroderma is an affection of the skin, characterized by diffused symmetrical hardening, and generally accompanied by more or less pigmentation. Beginning in some particular locality, without febrile disturbance, swelling, or œdema, the induration spreads with greater or less rapidity over a considerable extent of surface. The affected parts fade gradually into those which remain healthy, without any distinct line of demarcation, and they are on a level with the general surface, neither raised nor depressed, and contain no tubercles or other elevations. The temperature of the affected surface is either normal or slightly depressed. The general sensibility, as well as the functions of the glands are unaffected, save in the advanced stages of the most severe cases. It runs a chronic course, uninfluenced or nearly so, by therapeutical applications, and has no tendency to a fatal termination. Pathologically, the disease consists, essentially, in a great increase in the fibrous elements of the corium and papillary layer, decrease of fat in the subcutaneous connective tissue, and deposit of pigment in the lower layers of the epidermis and in the rete.*

Having given the above definition, I desire to maintain the individuality of scleroderma on this basis. In order to attain my object, it will be necessary to criticise two at least of the writers who have presented views concerning the nature of this affection, tending to connect it with others which they believe to be of a similar character.

The observations of these writers, Rasmussen and Fagge, have attracted considerable attention. The paper of the former (of which a translation appeared in the "Edinburgh Medical Journal," see reference) was entitled, "On Sclerodermia and its relation to Elephantiasis Arabum." In this he endeavored to prove a connection between the two diseases, and produced, by way of evidence, a very carefully noted case with post-mortem.

Whether this case of Rasmussen's was or was not one of scleroderma seems to me to be very doubtful; it certainly was far from being a typical case in many respects, as will appear from the following abstract, taken from the translation just mentioned. The case was that of a woman forty-six years of age, who, twenty-one months previously, had noticed a number of small knobs which began to be formed in the right breast, it having been much exposed to pressure from her work. These by degrees coalesced into a hard mass, and at the same time the breast contracted gradually. While she had no pain in the breast, yet there was violent pain in the right arm. Ten months later she was attacked with fever and pain in this limb, where erysipelatous redness and swelling set in, extending in the course of the next few days over the whole arm and down the trunk. The arm was much swollen, bullæ formed, and this was followed by high fever of an almost typhous character. Of this she entirely recovered, but shortly after her dismissal from the hospital, a month after the beginning of the attack, the swelling began again to form in the right arm, although this time without febrile symptoms or pain. This swelling seems to have extended from the right mamma over toward the shoulder, and thence down toward the hand, which itself afterwards became swollen. The same condition affected the scapular region, the whole anterior and right lateral surface of the right breast, the middle of the neck, and crossing the middle

line of the body to the left breast. At the time of the first observation, twenty-one months after the earliest symptoms had shown themselves, the right breast and a portion of the right lateral region of the trunk were hardened, as well as the whole arm and hand, excepting the flexures of the joints.

The right breast was contracted, but the arm and hand were swollen to double the normal size. The color of the affected parts was normal in the arm, brownish and streaked with red over the breast; the skin was very hard, especially on the latter. The boundary was sharply defined and irregular, and the induration at this point seemed to consist of knots as large as peas, which coalesced internally toward the more hardened parts. The patient died not very long afterwards of a kind of hæmorrhagic pleurisy. The post-mortem examination showed considerable cedema in the arm, while the skin of the breast formed an indurated mass of fibrous tissue, under which the subcutaneous fat existed in diminished quantity. At some points, tubercles as large as nuts, and of a fibrous nature similar to the general hardened skin, were found in isolated positions, lying in the otherwise natural subcutaneous connective tissue.

Microscopic examination showed the epidermis and rete natural, except a deposit of pigment in the latter. The papillæ were normal; the corium somewhat thickened, and containing fine elastic filaments in tolerable abundance. In the more perfectly sclerosed parts of the skin the boundary between the corium and subcutaneous connective tissue was absent, and the whole was a mass of connective tissue with exceedingly abundant elastic filaments, everywhere forming dense networks, which were met with also in the papillæ. It should be said that the former condition existed in the arm, while the more perfectly sclerosed parts were those in the mammary region, which were alluded to in the last paragraph. In the arm, where it is evident that the sclerosed condition existed slightly or not at all, that state of the vessels was found which Rasmussen thinks goes toward proving a connection between scleroderma and elephantiasis arabum. Here there was a considerable development of "cell broods" around the vessels of the skin and subcutaneous connective tissue.

It will be seen that the above case was wanting in some of the most characteristic features of scleroderma, while in others it departed greatly from the typical form of this disease. Thus, it will be noticed to have been non-symmetrical, to have been ushered in by fever and erysipelatous inflammation, to have been accompanied by œdema to a marked degree; and, finally, to have presented tubercular elevations around the sharply defined border, and a surface in some parts streaked with red, and otherwise differing from the usual color of the skin in scleroderma. More particularly did it differ from scleroderma in its pathological anatomy; since the peculiar formation of "cell broods," or "lymph sheaths" around the vessels (on which Rasmussen relies to show the supposed relationship between scleroderma and elephantiasis arabum) was found in the arm. But in the arm the clinical appearances resembled those found in scleroderma very slightly, much less so than in the breast, where no such sheaths were noted. As Dr. Fagge also remarks,\* "The assumption that the swollen and œdematous condition is an early stage of that observed in the chest, and would have passed into it, appears quite arbitrary."

Dr. Fagge,† on the other hand, devotes himself to the task of proving a similarity between scleroderma and the keloid of Addison. In order to do this he produces a series of cases, which, commencing at one extreme with those reported by Addison himself, gradually approach in their characters the doubtful cases of scleroderma, and finally end with cases which are undoubtedly good representatives of the latter affection. This method of showing the connection between the two affections is, it seems to me, quite fallacious. For, although in the hands of so able a writer as Dr. Fagge, it seems to bear conviction with it, yet it is open to the objection that, by the same means, almost any two diseases might be made out to be closely related if not identical. Dr. Fagge admits, after the allusions made to Rasmussen (*loc. cit.*), that the diagnosis of scleroderma is a less simple affair than he had formerly supposed, and that there may be several diseases closely related

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\* Guy's Hosp. Reports, vol. xv., p. 304. 3d ser., 1870.

† *Ibid.*, vol. xiii., p. 282. 3d ser., 1868.

and belonging to the same group which will be one day separated, while at present they are confounded together. The time, it appears to me, has arrived when—whatever may be said of the co-relative diseases, keloid of Addison, morphea, linear atrophy, etc.,—we may at least separate and define scleroderma with some degree of certainty.

Before concluding I must say a few words regarding Addison's keloid, a disease which, as described by that author, has scarcely a trace of resemblance to scleroderma. The pathological anatomy of the keloid of Addison has not yet been investigated, but the clinical features are so different that it is worth while to compare them for a moment with those of scleroderma, to see how great the contrast is. In Addison's keloid the disease makes its appearance in the form of one or more small brown patches, which become somewhat larger afterwards, and when fully developed resemble plates of ivory or parchment let into the skin, and surrounded by a pinkish or rose-colored vascular halo. These patches are non-symmetrical, usually not numerous, and never cover any extended surface. They either fade away very slowly, or seem after a while to change character by becoming puckered, and throwing out branch-like processes of brown, raised, semi-cicatricial tissue. The affected parts are usually very decidedly deficient in sensibility, and the typical patches seem to consist of *a deposit of new material* in the substance of the skin. Such are the appearances presented in undoubted cases of Addison's keloid; and even Dr. Fagge finally admits, after comparison with "scleriosis" (scleroderma), that the two affections "make two well-marked pathological groups." Under these circumstances I must protest against connecting the two diseases, as Dr. Fagge suggests, by using the terms "diffused" and "circumscribed scleriosis," to indicate scleroderma and Addison's keloid.

The compromise which some writers have made with the ideas of Rasmussen, by admitting an early œdematous stage in the history of scleroderma, is also objectionable, and not sustained by any facts which I have been able to ascertain.

Finally, as regards other cases of hardening of the skin, included in the list below as reported cases of scleroderma, those

which have as prominent features in their clinical history, acute inflammation of the skin, marked œdema (except where occurring under the circumstances mentioned in the analysis under this head), or where the disease is confined to a limited area, should, I think, be in future excluded from the category of cases of scleroderma.

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<sup>3</sup> Recueil Périodique d'observations, etc., 1754, p. 96.

<sup>4</sup> Ancien. Jour. de Médecin, 1754.

<sup>5</sup> l'Union Médicale.

<sup>6</sup> Bad. Neuendorf. bei Hautkr.; Allgemein. Med. Central-Zeitung, Bd. iii., p. 409.

<sup>7</sup> Handbuch zur Erkenntniss u. Heilung der Kinderkrankheiten, 1809.

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<sup>9</sup> Gaz. Hebdom., 2d sér., i., 45.

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<sup>11</sup> Gazette de Strasbourg, No. 6, 1847. Schmidt, 56, 184, 185.

<sup>12</sup> Cours théorique et clinique, de Pathol. interne, et de Therap. Méd., tome v.

<sup>13</sup> l'Union Méd., 1847, p. 422.

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<sup>16</sup> Trans. in Gaz. Méd. de Paris, 1848, p. 593.



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- <sup>31</sup> " " " " p. 186.
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## Clinical Contributions.

### BROMIDE OF CALCIUM IN THE TREATMENT OF SYPHILITIC NEURALGIA.

By WILLIAM A. HAMMOND, M.D.,

*Physician-in-Chief to the New York State Hospital for the Diseases of the Nervous System, etc.*

IN a short communication to the *New York Medical Journal* for December, 1871, I called the attention of the medical profession to the advantages of bromide of calcium in certain affections of the nervous system—especially in those in which speedy action was desirable. Since then the article has come into very general use, and numerous reports which I have received, as well as my own experience, tend to convince me that I did not in the least overstate its good qualities.

I have continued to employ it in those diseases of the nervous system in which the bromides are indicated, and within a comparatively short period have used it to some extent in neuralgia of syphilitic origin. The results of my practice in this direction I design stating in the present communication.

CASE I. Cervico-occipital neuralgia. J. C., aged 36, contracted a hard chancre several years previously to consulting me. Shortly afterwards he had cutaneous eruption and sore throat, which were ascribed by his physician to syphilitic infection. About a month before calling on me he became affected with dull aching pains in the nape of the neck and posterior region of the head. These were constant during the day, but were much increased in severity at night, so that he was to a great extent deprived of sleep. He was treated with mercury and iodide of potassium with some benefit at first, but this was soon lost and he became as bad as ever. He consulted me April 2, 1873.

Conceiving that the iodide of potassium had not been tried sufficiently, I subjected him to the influence of larger doses, which were increased so that at the end of ten days he was taking thirty grains three times a day. As no perceptible effect was produced

beyond gastric disturbance and the characteristic influenza, I ceased the administration of the iodide and began with the bromide of calcium in doses of fifteen grains three times a day. From the very first day the pain was lessened and sleep, sounder and longer than any he had had for several weeks, ensued. The improvement continued, and at the end of a week no symptom of the disease remained. Up to this period, Sept. 10, 1873, there has been no recurrence.

**CASE II.** Cervico-occipital neuralgia of long standing. W. P., an inn-keeper, contracted syphilis when a young man. When he consulted me, April 4, 1873, he was about 45 years of age and had suffered from cervico-occipital neuralgia, with occasional periods of remission, for more than ten years. At this time he was also affected with osteoscopic pains, and had had nodes on the ulnæ and tibias.

The neuralgic pains in the back of the neck and head, however, had for several years given him more distress than all his other syphilitic manifestations combined, and being worse at night, had in a great measure deprived him of sleep.

The syphilitic character of his disease had been recognized by nearly all the physicians who had treated him, and he had accordingly taken large quantities of iodide of potassium and mercury. No effect had been produced. Quinine, arsenic, and many other remedies, including electricity, had also been employed without avail. When he came under my care he was taking a twelfth of a grain of the bichloride of mercury with twenty-four grains of iodide of potassium three times a day. He had frequently, he said, taken as much as two hundred grains of the iodide of potassium daily for ten days at a time.

At his first visit to me there was excessive tenderness of the skin of the nucha and the scalp covering the occipital bone and posterior parts of both parietal bones. This tenderness was readily aggravated into constant pain by physical or mental exertion. Indeed, he could bring on a severe paroxysm by moving the head rapidly two or three times on its axis.

I prescribed for him a solution of the bromide of calcium (one ounce to four ounces of water), with directions to take a teaspoonful morning and afternoon, and two teaspoonfuls on

going to bed. The next morning he reported that he had slept better than at any time in the last year, and that the pain was decidedly less. The medicine was continued; the tenderness gradually disappeared and the tendency to exacerbations progressively diminished. After twenty days' use of the bromide of calcium, during which period his general health likewise improved, he pronounced himself well. On the most thorough examination of the skin over the course of the nerves and at their most superficial points, I could discover no abnormal tenderness. He has had no return of the disorder.

Case III. Neuralgia of the ophthalmic branch of the fifth pair. C. S. consulted me June 7th, 1873, for intense neuralgic pain affecting the left ophthalmic nerve. A few months previously he had contracted a hard chancre, but was not certain that he had had any subsequent syphilitic manifestations. The pain, which was exceedingly intense, was mainly felt in the supra-orbital branch and in the eyeball. When he first came to me the disease had existed, with but slight remissions, for thirteen days.

Believing the neuralgia to be of syphilitic origin, I subjected him to the action of mercury and iodide of potassium, the latter in large doses, with the effect of relieving him entirely. After treatment of less than a week's duration, on the 28th of the month he returned with the pain as bad as ever, and with symptoms indicating the implication of the superior maxillary nerve of the same side. I again employed mercury in the form of the protiodide, half a grain three times a day, and iodide of potassium in doses extending to forty grains, three times a day, but without any decided effects, although the treatment was continued a week. The bromide of calcium was then administered as in the cases cited, and the doses were increased, after two days, to twenty grains. Amendment was almost immediate, and went on without interruption, till at the end of five days the pain had entirely ceased. The treatment was continued for several days longer, in order to guard against a relapse. There has been no recurrence.

Case IV. Mrs. M. was syphilized by her husband three years before coming under my care. She had had various secondary and tertiary manifestations of the disease, and during the last three months had suffered

severely from brachialgia. Upon examination I found that the nerves principally affected were the ulnar and radial, with their branches, and that the disorder was limited to the left side. The pain was not very sharp, but was dull and aching, giving the sensation, as she described it, as though the arm was being squeezed in a vice. It was always worse at night. I began the treatment with the bromide of calcium, in twenty-grain doses, three times a day. The first night she slept well, and the pain was less. From this time she continued to improve, and after taking an ounce and a half of the bromide was entirely relieved. She has remained well up to the present time.

I have given the bromide of calcium in several other cases, similar in general features to those above related with like results. It has failed in three cases, which, so far as I could perceive, were not dissimilar to those in which it succeeded. It certainly is, so far as my experience extends, much more efficacious than any other of the bromides, most of which I have tried in syphilitic neuralgia with but indifferent results.

[In the early part of the year 1871, I was led, on reading Dr. BENJAMIN WARD RICHARDSON's admirable Discourses on Practical Physic, to test the value of the bromides in certain cases that came under my care. Among those of most interest, in which I was particularly led to their use, were many of those obstinate and inveterate cases of syphilitic neuralgia that were not always relieved by the use of large doses of iodide of potassium even when combined with opium. In urgent cases I resorted to the use of the syrup of the bromide of morphia, but I relied mainly on the syrup of the bromide of quinine combined with the iodide of potassium, and the results have been most satisfactory. From notes of cases I am warranted in stating that I have met, during the past two years, with more than ordinary success in the treatment of over fifty cases of inveterate and neuralgic lesions of syphilis by the use of the bromides.—EDITOR.]

## Reviews.

### SYPHILIS: ITS RELATIONS TO MARRIAGE.\*

THERE is no question in the domain of medicine ever put to the physician that is of so much importance in all its bearings, social as well as scientific, as that demanding, when a person who has been infected with syphilis can marry with safety. The importance of the subject is only fully realized by those who have had a large experience in the management of this class of diseases; and yet there is no physician, however limited his opportunities, that is not, at times, called upon to decide this question. Regarded in its scientific aspects, an answer involves the necessity of a thorough knowledge of the pathology and phenomena of syphilis, as well as a philosophic habit of examining questions of a delicate and important character. In its social bearings depends not only the health and general welfare of individuals, but of the whole human race. Do we, then, attach too much importance to the question when we state that there is no subject in the whole domain of medicine that demands such serious thought and attention on the part of the physician? The standard works on venereal diseases do not enter into any discussion of the special relations of venereal diseases to marriage, and to supply this want has Dr. Langlebert offered the interesting volume devoted to a solution of this problem. He divides his subject into six parts. Each part is prefaced with a question which he answers in detail. The questions are all pertinent, and to the educated syphilographer suggest many points that need careful investigation. While the work is really an excellent one and the views and experience of its talented author are clearly set forth, much further good may be anticipated through Dr. Langlebert's suggestions by inducing systematic and scientific investigations into ques-

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\* *La syphilis dans ses rapports avec le mariage.* Par Edmond Langlebert. Paris: Adrien Delahaye, 1873.

tions that still admit of doubt and dispute. Among the many questions discussed may be mentioned the use of mercury, and the extent of its usefulness in suppressing or delaying the manifestations of syphilis. We regret that we can scarcely do more with this interesting volume than refer to the questions and offer short running comments on the answers.

## FIRST QUESTION.

*"A man or woman heretofore free from any syphilitic antecedents presents one or more chancres with the features of a non-infecting chancre, and asks when he or she may marry with safety?"*

In answer to this question Dr. Langlebert sums up his conclusions as follows:—If after the lapse of six months there is no manifestation of constitutional syphilis following a chancre, or any other venereal ulcerations, he maintains with RICOED, ROLLET, and other experienced observers, that it is positive that the patient has not undergone general infection, and he believes that this certainty is unquestionable even when the patient has regularly followed during that period a specific treatment.

## SECOND QUESTION.

*"An individual had contracted, six or more months previously, one or more chancres, the natures of which he cannot state with any precision and for which he was subjected to a mercurial course of treatment.—When may he or she marry with safety?"*

A retrospective diagnosis in constitutional syphilis is not always easily reached. It demands not only a perfect knowledge of the various syphilitic symptoms and stigmata that may remain, but an experienced habit of examining persons and ability in sifting from their answers, frequently obscure and embarrassed, the indications necessary to form an accurate opinion. The author has formularized in an exceedingly clear manner the main features that are essential to a proper understanding and examination of, cases demanding an opinion.

Tact, judgment, and intelligence are the main elements of success in arriving at sound conclusions.

FORM FOR THE EXAMINATION OF PERSONS SUSPECTED OF HAVING  
HAD SYPHILIS.

I. The person has had chancres or gonorrhœa.

II. Ascertain and determine the period of these accidents. Has the person had one or more chancres? Did these chancres exist simultaneously or at different periods?

III. In case of a single chancre, what was its site, form, and dimensions? What time elapsed between the contraction and manifestation of the disease? Was the ulcer soft or indurated?

IV. Examine the place indicated as having been the site of the chancre. It should not be forgotten that the specific induration may persist for some time after cicatrization; it may, at times, be apparent for some years. It should also be borne in mind that the cicatrix of the infecting chancre frequently presents, when involving the cutaneous surface, the skin of the prepuce, for instance, a characteristic bronze tint which disappears but slowly.

V. Regarding the site of the chancre, its symptomological importance should not be neglected, as in certain regions, such as the lips, the tongue, and other parts of the face, infecting chancres alone manifest themselves; while in other regions, such as the sheath of the penis and the scrotum, this chancre, without being exclusive, occurs more frequently than the simple chancre.

VI. What occurred in the ganglia in the vicinity of the chancre? Did these ganglia become tumefied? Were there several forming in the groin, on one side, or in both sides simultaneously (assuming that it was a chancre of the genitals), an indurated and indolent pleiad? or did an inflammatory, red and painful tumor manifest itself having a single ganglia for a focus?

VII. In the latter case, did the ganglionic tumor suppurate or terminate in resolution? If it suppurated, did the spontaneous or artificial aperture by which the pus escaped close



rapidly, or did it, on the contrary, progressively enlarge and transform itself into a chancrous ulcer?

VIII. Examine the inguinal regions, where possibly traces of a specific adenopathy may be found which, like chancrous induration, persists frequently for a long time—months, even years—after the primary accident.

IX. If the patient has had a suppurative bubo, the examination of the cicatrix might afford the means of ascertaining whether it was one of a simple character, or if it resulted in a ganglionic chancre—the knowledge of which is important, as in the latter case it is *almost* certain that there was no constitutional infection.

X. Inquire the duration of the chancre or chancres; what treatment was pursued; the name of the physician who was in attendance—*naturam morborum ostendant remedia*—when attended by a physician of recognized ability.

XI. What were their sequelæ? Does the patient remember having, in the first two or three months following the inception of the chancre, suffered from a feeling of lassitude and fatigue, pain in the head or in the limbs, especially during the night?

XII. Did the patient observe any manifestation of red spots (roseola) or small pimples of a similar color, of a lenticular form, and without exciting itching, on the chest, abdomen and forearm?

XIII. Did the patient have about the same time, or a little later, grayish patches with or without ulceration in the throat, on the lips or tongue? Did his hair become thinned? Did he have blackish scales, about the size of a lentil, on different parts of the scalp? Did the mastoidean or cervical ganglia become tumefied?

XIV. Examine the occipital region, where possibly a ganglionic tumefaction may still exist, which, in certain cases, persists for some time after the disappearance of the other syphilitic symptoms.

XV. Ascertain if the hair has become thinned, especially on the temporal and occipital regions; if the hairs have maintained their natural softness and brilliancy, or if, on the contrary, they have become dull, dry and brittle; if the scalp does

not present here and there some cicatrices or small, whitish spots devoid of hair.

XVI. Examine the throat. If the tonsils and velum of the palate have been the site of ulcerated mucous patches—a symptom rarely wanting in secondary syphilis—it can be generally recognized by the indelible traces which these patches leave on the mucous membrane. In lieu of presenting the usual smooth appearance, will show an irregular surface of a rugged and shagreenous aspect; the border of the velum of the palate, as well as the pillars of the fauces, will have lost their smooth and normal aspect; they will be found fringed, and more or less deeply jagged. This sign is, however, only of relative value; cauterization of the throat for any other disease might induce the same results.

XVII. It should be borne in mind that in many persons who have been the subjects of constitutional syphilis, even at a very distant period, the lips, the internal surface of the cheeks, and especially the edges and point of the tongue, become the site of rounded or irregular white spots, on the surface of which the mucous membrane is sometimes found in a scaly condition (mucous psoriasis). These epithelial squamæ, owing to their persistency and to the facility of their recurrence, are always symptomatic, if not positive, at least strongly presumptive of an old syphilis.

XVIII. Ascertain if there are not some cicatrices, the result of the pustules of ecthyma or rupia, rounded, reticulated, and clearly defined cicatrices, by which they may be distinguished from those of burns, which are more or less irregular. The chest, the abdomen, the lower extremities, and the palmar and plantar surfaces of the hands and feet may also present a few spots or maculæ, with or without depression of their surface; their yellowish or coppery tint permits the ascertainment in a certain degree of their relative age, the more recent ones being necessarily of a deeper hue.

XIX. Be particular to avoid the error of confounding syphilitic roseola—which has frequently occurred—with those ephe-rides or hepatic spots of *pityriasis versicolor*, an altogether local and parasitic affection of frequent occurrence, and which

only appears in common with roseola on its customary site—that is, the chest and abdomen.

XX. Do not mistake for syphilitic spots or papules those pimples of acne which are so frequently seen on the back and shoulders of certain persons, and which in persons with a brown skin leave persistent maculæ of a dark and coppery red color. By questioning the patient it will be ascertained that the eruption has existed for a great length of time; ordinarily since youth, or at least from a period antecedent to the one in which he contracted his primary venereal infection.

The author pays especial attention to these points, on which depends the whole question at issue. If the result of an examination, conducted in the manner suggested, is negative, and the recovery from the primary infection dates farther back than six months, he believes there is no good reason why marriage should not take place. Should there be the slightest doubt, however, on any one of these points, or should there be the slightest suspicion that any disease still remained latent in the system, marriage should be postponed. An exception to this rule will be discussed in answer to the fourth question.

Our author also alludes to a common class of consultations arising from indiscretions committed within a few days of marriage. This, of course, refers to promiscuous sexual intercourse—followed by fear and anxiety lest some form of disease should be developed subsequent to marriage. The only favorable circumstances for reaching a prognosis which would be of the slightest value would be the examination of the female, which would be absolutely necessary. Should she be found entirely free from any disease, even then there would be the fear of immediate contagion. This could only be satisfactorily overcome by delaying marriage for, at least, two months. During this period, if venereal contagion had taken place it would be manifested either in the form of gonorrhœa, simple chancre or chancre. The author cites a case in support of the value of this precaution:—

A gentleman married, contrary to his advice, in whom a chancre manifested itself eight or ten days after his marriage. At the time his attention was attracted to it his wife had already

become infected. She developed a chancre, which, like that of her husband's, was followed by various syphilitic symptoms, for which he treated them nearly one year.

Cases of gonorrhœa manifesting themselves a few days after marriage, resulting from similar causes, are not uncommon.

#### THIRD QUESTION.

*"A man suffering from a chronic gleety discharge, with or without engorgement of the epididymis. When may he marry with safety?"*

Laying aside the probability of any one marrying when suffering from acute gonorrhœa, the question arises whether the discharge is a simple gonorrhœa, or a urethral chancre. This may be readily ascertained by an experienced practitioner. When the discharge has assumed a gleety character, all danger of contagion having passed, there is no good reason why marriage should not take place. The author also alludes to a form of urethral hypochondriasis resulting from previous infection. This, of course, has no relation whatever to the question of the patient's marrying. The suggestion made by our author, that the patient suffering from gleety discharge should place himself under the care of a physician, is certainly a good one; but we doubt whether any one should marry while suffering from any gleety discharge whatever. Dr. Langlebert suggests that in case the discharge should assume an acute character the patient should abstain from intercourse for a few days. This would not prevent gonorrhœal contagion or its equivalent in the form of some unpleasant vaginal discharge. He also speaks of what is known in France as *goutte militaire*—a chronic urethritis, which is dependent on either a more or less serious and persistent lesion of the urethral mucous membrane: a partially localized inflammation: a constriction, behind which are developed granulations, fungosities, and frequently ulcerations. It must not be forgotten that the discharge emanating from the urethra from any of the above-named causes is contagious, and may induce a vaginal gonorrhœa, particularly of the deep portions of the vagina, with ulcerations of the cervix—tenacious and diffi-

cult to cure—and which may eventually produce the most serious effects on the general health. Attention is called to the effects of gonorrhœal epididymitis—obstruction of the ducts and prevention of the free circulation of the sperm. The obliteration may continue with chances of recovery up to a period of eight months. In speaking of balano-postitis, which in itself is of no importance, since it is easily cured, care is essential that it is not confounded with the chancre known as *epithelial phagædænic chancre*, which might lead to very serious results. The author cites a case which occurred in his own practice.

## FOURTH QUESTION.

*“An individual is, or has been, the subject of an infecting chancre, which has been, is, or will be, followed by secondary or tertiary accidents. When may he or she marry with safety?”*

In answer to this question our author mainly calls attention to the dangers of infection from primary or secondary secretions. This is so well understood that we need scarcely dwell further on this portion of the work. He refers to the obligation of the physician not to disclose the nature of the disease of a patient, even when it is sought by the parent of one who is sought in marriage, and alludes to the sad death of DELPECH, who is supposed to have violated the confidence of DEMPTOS, his patient.

## FIFTH QUESTION.

*“A man marries after having had syphilis, but at so distant a period that he is led to hope that no further evidence of the disease will develop itself. What has he to fear for his future progeny?”*

The first part of the chapter devoted to the answer of this question is mainly a discussion of the supposed metamorphosis of syphilis into scrofula by transmission. Our author's views on this point are those held by most modern pathologists. It is purely hypothetical, and exists only as a prejudice of a past day—condemned alike by observation, logic, and all the known

laws of pathology. In the second part he discusses paternal transmission. Can a syphilitic man engender syphilitic children without having previously infected his wife either before conception or during her pregnancy? For a long period it was assumed that infection from the male might take place under the above conditions; experience, however, based on clinical observations, has led modern syphilographers to regard paternal transmission as exceedingly doubtful.

#### SIXTH QUESTION.

*"An individual with syphilitic manifestations marries, or contracts syphilis subsequent to his marriage. What course is he to pursue to avoid, or at least to mitigate as much as possible, the consequences of his error?"*

Under this head the author enters fully into elaborate details of the manner in which the syphilitic is to avoid conveying the disease. He discusses fully the immoral character of those who expose themselves to the danger of infection, and the subterfuges that are resorted to for the purpose of deceiving those in attendance. The question whether it is necessary to subject to constitutional treatment the pregnant woman whose husband alone manifests evidence of syphilis, or when the woman has contracted syphilis, is discussed in an exceedingly full and able manner in all its bearings. The remaining portion of the work is devoted to the questions of submitting a syphilitic child to the care of a healthy wet-nurse, and the legal questions that may be involved by so doing; the transmission of syphilis by vaccination; the medico-legal question of syphilis communicated in conjugal relations, and an appendix devoted to a model of reports, due to M. TARDIEUX, on the transmission of syphilis between nurslings and nurses. The work is an exceedingly able contribution to our knowledge of venereal diseases in relation to marriage and the results of marriage. It is written in a philosophic spirit, and will serve as a useful guide to those who are called upon to decide the delicate questions of which it treats.

M. H. HENRY.

## Selections from Foreign Journals.

### THE VISCERAL LESIONS OF INHERITED SYPHILIS.\*

BY DR. E. LANCERAUX (PARIS).

TRANSLATED FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE FOR 1872-1873,  
BY DR. EUGÈNE PRUGNET.

THE tendency of inherited syphilis to involve the viscera is even greater than that of acquired syphilis. They may all be without exception subject to its influence, and this must be readily admitted, for all contain tissues formed from the blastoderma, for which the syphilitic virus has a special affinity. For the purpose of studying its action, and the various modifications which appertain to inherited syphilis, we will examine in succession the various organs intended for the maintenance of the life of the individual, or for the preservation of the species.

AFFECTIONS OF THE TESTICLES AND KIDNEYS.—The affections of the testicle have until now been but rarely observed. However, a case of inherited syphilis, accompanied with a swelling of one of the testicles, has been reported by North; † the same affection has been seen by Bryant. ‡ Dr. Obédenare has sent to me, from Bucharest, a photograph of a child affected with a syphilitic testicle, and in which the swollen testicle is seen to form a hernia through an opening in the scrotum (fungus of the testicle).

The lesions of the kidneys have been as little studied. On examining the viscera of a child born of syphilitic parents, which my colleague, Dr. Tarnier, had the kindness to send to me, I ascertained that, besides the alterations of the liver, so well described by Gubler, there was a renal lesion, characterized by a thickening of the connective tissue and a fatty granular degeneration of the epithelial cells of the tubuli. The kidneys, tolerably firm, were remarkable on account of a yellowish tint, similar to the one found under like circumstances on the surface of the liver. Bradley § has observed the disappearance of an albuminuria, with œdema of the face and

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\* Extract from a *Treatise on Syphilis*, to be issued by Germer Baillière.

† North, *Med. Times and Gaz.*, 1862, vol. i., p. 403.

‡ Bryant, *Med. Times and Gaz.*, Dec., 1863, p. 614.

§ Bradley, Syphil. Anars. Kidneys, *British Med. Jour.*, Feb. 4, 1871.

upper extremities, after a mercurial treatment, in a child four months of age affected with inherited syphilis.

AFFECTIONS OF THE ALIMENTARY CANAL AND PERITONEUM.—Forster \* describes the fibrous degeneration of Peyer's patches in a syphilitic child who died on the sixth day after birth, and who, besides other lesions, presented a pleuro-pneumonia and purulent bronchitis. There were projecting swellings with a smooth surface on the patches of a grayish rose tint, yellowish in the centre, and formed in great proportion by nuclei of the cells and fibres of the connective tissue, in lieu of the glandular structure.

Eberth,† Roth,‡ and Oser§ have observed similar cases. The intestinal lesion which they all describe as syphilitic enteritis, is essentially an affection of new-born children subject to inherited syphilis. It is characterized by multiple and circumscribed indurations of a variable size, more frequently rounded, situated on the surface of Peyer's patches, or on the solitary glands. The mucous membrane covering these indurations or small tumors, is sometimes smooth and slaty, at others more or less deeply ulcerated or destroyed. In the latter the new formation has the appearance of a dry eschar, but slight in extent, which, when detached, leaves behind it an ulcer with a brilliant and lardaceous fundus. This lesion may involve all the layers of the intestinal mucous membrane, but which more frequently localizes itself in the submucous tunic, is formed both by an infiltration of cells analogous to the lymphatic cells, and by a more or less abundant connective formation; the corresponding villi are either hypertrophied or destroyed.

Simpson|| admits the existence of an inherited syphilitic peritonitis, based on thirty-one personal observations; but these observations are far from being all conclusive. In some there is a doubt of the hereditary influence, in the others mention is barely made of the condition of the abdominal organs, and especially of the liver. In three cases of inherited syphilis, Wilks found adhesions between the liver and diaphragm, and twice a generalized peritonitis. Gubler has observed in several cases of syphilitic hepatitis, traces of peri-hepatitis. Baeren-

\* *Wurzburg Medecin. Zeitschrift*, vol. iv., part i., 1863.

† G. J. Eberth, Ueber eine eigenth. vielleicht syphilit. Enteritis, *Archiv für path. Anat. und Physiol.*, vol. xi., p. 326, 1867.

‡ Roth, Enteritis Syphilitica, *Archiv für path. Anat. und Physiol.*, vol. xliii., p. 298.

§ Oser, Fälle von Enteritis Syphilitica, *Archiv für Dermatol. und Syphilis*, vol. iii., p. 27, 1871.

|| Edin. Med. and Surg. Jour. No. 37, and Obstetric Works, Cases V., VI, VII., vol. ii., p. 172.



sprung\* has often seen on the surface of the liver, of the spleen, or even of the intestines, soft and slightly consistent, or firm, resisting and ligamentous-like pseudo-membranous deposits. From the accordance of these various authors, it may be concluded that peritonitis, which is a manifestation of acquired syphilis, is also an accident of inherited syphilis. The characters of this affection, more frequently localized to certain portions of the peritoneum, are those of chronic adhesive peritonitis, that is, a lesion which does not manifest itself either by suppuration, rapid progress, or by acute symptoms.

The pancreas is rarely involved in the fœtus or the newborn child who inherits syphilis. Virchow\* has observed in one case the fatty degeneration of this gland, and other authors may have seen the induration of the same. I am not aware of any case in which there was a lesion of the salivary glands.

AFFECTIONS OF THE LIVER AND OF THE VASCULAR GLANDS.—The liver is one of the organs the most exposed to the attacks of inherited syphilis, and this fact is not surprising, as the important functions of this organ in the fœtus, and its susceptibility to the influence of syphilis in the adult, are known but slightly, if at all known to the ancient authors. The hepatic lesions connected with syphilis are of two forms: one diffused, the other circumscribed and very analogous to the gummy lesions.

Gubler is the first to have well described the diffuse lesions (diffuse hepatitis), which are those that occur most frequently. The liver, more voluminous than in the normal condition, is turgid, globular, elastic, hard, difficult to indent with the fingers, which finally tear it without leaving any impression on its surface. Unevenly altered in all its extent, or only at certain points, it presents a peculiar yellow coloration, similar to flint, and is, in a few cases, covered with small white opaque grains having the appearance of *sémoule*; by section, vascular striæ, opaque grains irregularly disseminated, and more or less large and extended yellowish spots are seen in its homogeneous tissue. Infection demonstrates that the vascular tissue is almost impervious. The microscopical examination reveals the presence of young rounded cells, isolated or in masses, and of a fibroid tissue of a new formation, in the midst of which the cells of the glandular structure are scattered, and, so to speak, buried, or have entirely disappeared. The coats of the vessels are always noticeably thickened, and, as I have been able to observe quite recently in a specimen which M. Taurin, interne to Prof. Chauffard, had the kindness to give me, even

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\* ——— *Die hereditær Syphilis*, Berlin, 1864.

extend beyond the modified centres. The bile is of a pale yellow, and very thin; the blood, almost always altered, has the consistency of currant-jelly. The variable coloration of the liver, more frequently yellowish or grayish; its firm, elastic consistency, and occasionally soft to the touch; its smooth surface, and the feature that its partial, more than generalized, modification forms more or less extended focuses involving the entire lobules. Such are the characteristics which mark syphilitic hepatitis.

Usually, manifestations undeniably of syphilitic origin co-exist with these lesions, and which having been observed by Trousseau, Horteloup, Cullerier, Depaul, Lenoir, Lebert, Desruelles, Cazenave, and the greater portion of French and foreign physicians,\* their relation to syphilis is therefore no longer doubtful. The small grains, or whitish granules, disseminated in the liver, and which Wagner has called miliary syphiloma, differ from the gummy tumor proper in that they do not, like the latter, leave appreciable cicatrices; but it must be admitted that this difference is probably only the effect of a more acute progress in the hepatic affection, and its almost necessarily fatal termination. However, Cullerier† found in a child who recovered under a course of the proto-iodide of mercury, the surface of the liver covered with a fibrous layer, which was apparently the result of a plastic infiltration.

Gummy syphilitic hepatitis of the fœtus and new-born child has been observed by Testelin,‡ Thiry,§ Wedl,|| Zeissl,¶ Schott,\*\* etc. In a case reported by Testelin, the liver of a child seven months of age, elastic, yellow, brownish, heavy, and voluminous, contained tumors varying in size from a hazel-nut to a walnut. In a new-born affected with pemphigus, and observed by Wedl, there was on the convex surface of the liver an oval kernel, about the size of a bean, of a yellow tint, brilliant in the centre, and more resistant than the surrounding hepatic tissue; the mother of this child was affected with secondary syphilis. In a child born under similar circumstances, and who died a few days after its birth, I found a firm,

\* Examine Hecker, *Verhandl. der Gesellschaft f. Geburtz*, Berlin, 1857, vol. viii., p. 131. Bamberger, *Virchow's Handb. der Path.*, vol. ii., p. 561. Thiry, *Gaz. Hebdom.*, p. 141, 1859. Howitz, *Hospit. Tidende*, 1862, Nos. 32-35. Testelin, Forster, E. Wagner, *loc. cit.* Lanceraux and Lackerbauer, *Atlas d'Anat. pathol.*, p. 59 and pl. 7, fig. 5.

† Cited by Diday, *loc. cit.*, p. 154.

‡ *Jour. Méd. de Bruxelles*, Oct., 1858.

§ *Presse Méd. beige*, 1858, No. 22.

|| *Grundzuge der pathologischen Histologie*, p. 299, Wien, 1853.

¶ *Lehrbuch der Const. Syphilis*, Erlangen, 1864.

\*\* *Jahrbuch der Kinderheilkunde*, 1871, IV.

elastic, and resistant tumor, of a whitish coloration on section, situated near the centre of the liver.

Usually, these lesions are slow in revealing themselves, that is, when in an advanced period of their evolution. As described by Portal, the infants cry, incessantly agitate the limbs in sign of suffering, are taken with vomiting, and have diarrhoea, if not constipation. Meteorism and sensitiveness on pressure of the abdomen; the pulse, accelerated gradually, becomes weaker; the facial expression becomes more and more altered; the skin assumes a yellowish or earthy tint, and the emaciation is rapid and progressive; it is a general breaking down—a true marasmus. Then palpation and percussion indicate an increased volume and even hardness of the liver. Icterus is so uncommon that Gubler has not observed it in any case; ascites and oedema of the lower extremities have been seen but occasionally; therefore it is more the general than the local condition which indicates the affection of the liver.

The progress of this disease is slow and chronic; after the development of the cachexia the fatal termination is rapid. The diagnosis is based upon the concordance of the local and constitutional symptoms, and on a knowledge of the pathological antecedents of the little sufferer's parents. The more extensive the hepatic lesion, the more unfavorable is the prognosis. Let us add, that the obliteration of the biliary ducts, observed in the serious cases of icterus in the new-born, might also be of syphilitic origin; and what would lead to admit it, are the alterations of the liver and of other organs met coincidentally with this lesion.\*

The alterations of the spleen are common in inherited syphilis. All the cases we have met with presented an increased volume of this organ, which, according to S. Gee,† exists only in one-quarter of the cases. The entire spleen is usually involved in this alteration; ‡ it is firm, smooth, occasionally adherent to the neighboring organs, and frequently only offers an increase of its elements. This alteration, which frequently coexists with syphilitic affections of the liver, is frequently accompanied with lesions of the lymphatic ganglia. When resolution occurs, the volume of the spleen gradually diminishes, and this organ appears to have resumed its normal size.

\* Examine C. Binz, Zur Kenntniss des tödtlichen icterus, d. Neugeb. aus oblit. d. Gallengange, *Archiv. f. pathol. Anat. und Med. Physiol.*, vol. xxxv., p. 360. Roth, *ibid.*, vol. xliii., p. 296.

† *Gaz. des Hôpitaux*, 1867, p. 177.

‡ In a case reported by Gregorie (p. 289), gummata in various stages of development are described; but it is a question whether it is not only a case of vascular infarction.

The lymphatic glands, which are subject to the influence of acquired syphilis, are also affected by inherited syphilis. Hutchinson\* has seen most of the bronchial glands of a child, five months of age, infiltrated with that form of fibrinous deposit which is so frequently met with in acquired syphilis. This child, born of syphilitic parents, was subject to a cutaneous eruption, but had been healthy during the first two months of its existence. The enlargement and alteration of these glands is noted in most of the numerous cases reported by Baerensprung. This modification does not differ from that of other organs; it most frequently consists of a diffuse infiltration of new elements, and occasionally of small circumscribed tumors. The ganglia of the gastro-hepatic epiploon and of the mesentery are most usually the seat of it. Rivington† attributes to inherited syphilis a general enlargement of the visceral lymphatic ganglia in a girl sixteen years of age, who presented such an arrest of development that she did not appear to be more than six years old.

The suprarenal capsules are noticeably enlarged in a great number of cases of inherited syphilis. Virchow, who has observed this increase of volume, reports in one case the complete fatty degeneration of these glands. Baerensprung has found, in children affected with congenital syphilis, the cortical portion of the suprarenal capsules filled with small masses formed of kernels and of young cells of connective tissue; a modification very analogous to the diffuse change in the liver. Huber‡ has seen, in a child affected with congenital syphilis, the suprarenal capsules enlarged, grayish, and filled with small yellowish spots, which were formed by fatty débris. Hennig§ has found, in one case, the left suprarenal capsule enlarged, adherent to the diaphragm, and containing a gelatinous substance.

The thymus gland, owing to its functional activity during intra-uterine life, has a predisposition to be subject to the influence of inherited syphilis. In 1850, Professor P. Dubois, | whilst endeavoring to discover the cause of death in new-born syphilitics, observed, in a certain number, an alteration of the thymus, which almost always presented itself in an identical form. This change was characterized by the presence of disseminated pus, or gathered in spots in the body of the organ. Since that time a large number of cases have been added to

\* Hutchinson, *Med. Times and Gaz.*, 17th July, 1858.

† Rivington, *Med. Times and Gaz.*, October 19, 1872.

‡ Huber, *Arch. f. Klin. Med.*, vol. v., p. 270. Hecker, Ueber Syph. Congen. innerer organ, *Monatschr. für Geburtsch.*, xxxiii., p. 22, 1869.

§ Hennig, *Jahrb. für Kinderheilk.*, Dec. 5, 1872, p. 109-113.

| *Gaz. Méd. de Paris*, 1850, p. 393.—*Ibid.*, 1851.

those of the celebrated French obstetrician. Depaul found once, in each of the lobes of the thymus, a cavity filled with a grumous, yellowish, and thick matter. Weber\* reports a case of abscess in the same gland. C. Hecker, † Desruelles, Braun, Spath, and Weld ‡ have reported similar changes. But must it be admitted that these were purulent centres in all the cases, and would it not be better to believe in the existence of the products of softened gummata, metamorphosed and confounded with abscesses? We cannot decide this positively, although, owing to the rarity of purulent formations in constitutional syphilis, we are inclined to adopt the latter hypothesis. The case of Lehmann, § in which the thymus, the liver, and the dura mater were the site of tumors formed of connective tissue, having undergone the fatty metamorphosis, would, to a certain extent, favor the idea that the syphilitic lesions of the thymus are not any more likely to suppurate than those of the other viscera. Moreover, the description which is found in the case reported by Desruelles is more applicable to a gummy tumor than to an abscess.

Finally, the syphilitic manifestations of the thymus show themselves as circumscribed centres or tumors; the diffuse lesions, which some believe they have seen, may be doubted, as many observers at least have not met with them. It will, therefore, be necessary to search for them hereafter, and, if they exist, to ascertain their precise characters. The increase of volume is the principal symptom of a syphilitic thymus.

It must be admitted that, with the numerous glandular lesions described, the blood may be altered; this is demonstrated by the condition of the blood, which has the appearance and consistency of currant-jelly, and the numerous ecchymoses met with after death in natural cavities or in the midst of certain parenchymas. Hutchinson has, in one case, found the pericardium filled with coagulated blood. In many of the cases reported by Baerensprung, mention is made of sanguineous effusions in the pericardial cavity, and even in the cavities of the pleura or meninges.

Before being aware of these facts, I had personally observed several cases of inherited syphilis, accompanied with visceral lesions and multiple sanguineous effusions. A woman, X—, 25 years of age, in January, 1860, gave birth, at full term, to a

\* *Beiträge zur Patholog. Anat. Neugeborenen*, Kiel, 1852, vol. ii., p. 75.

† *Verhandl. der Berliner Gesellsch. f. Geburtsch.*, vol. viii., p. 117-122.

‡ Weld found in one case a cavity in the centre of the thymus filled with pus mixed with serum.

§ *Würzburg Med. Zeitschrift*, vol. x., p. 29.

child who died five or six hours later. At the post-mortem I found under the pericranium numerous ecchymotic spots; these were also found, but less abundant, in subcutaneous cellular tissue of the extremities, and on the surface of the lungs and pericardium, the cavity of which was partially filled with a sanguinolent fluid. The liver, voluminous, firm, and resisting on pressure, had a yellowish (sole-leather) tint. The spleen was hard, firm, and voluminous; the kidneys appeared to be normal. The mother informed me that the father of this child was affected with syphilis, but that she herself had never observed anything.

**AFFECTIONS OF THE ORGANS OF CIRCULATION.**—The heart is alike subject to the attacks of inherited and acquired syphilis. Rosen \* has reported a case of congenital gummata of the left heart. Then, Forster† speaks of a case of syphilitic endocarditis occurring in a child six weeks of age; but it must be added that the existence of syphilis in this child is very doubtful. A case of fibrous myocarditis, in a still-born syphilitic child, is reported by Wagner.‡ In a case reported by Kantzow§ there was, besides an interstitial myocarditis, a muscular hyperplasia (myoma), which Virchow attributes to an irritation of vicinity, somewhat like the hyperostosis accompanying a gummata of the periosteum.

There has been no case of syphilitic arteritis reported; but Schuppel|| has seen a case of *peripelephlebitis* in syphilitic children whose livers were affected, and even in others in which the parenchyma appeared to be healthy. The venous thrombosis occurring in children hereditarily infected is rather the effect of the cachexia than a modification which would primarily involve the venous parietes; these parietes, more frequently stained by the coloring matter, owe this fluidity to the sanguineous fluid, the white corpuscles being frequently increased in number.

**AFFECTIONS OF THE ORGANS OF RESPIRATION.**—The respiratory organs are frequently affected in young children who die from inherited syphilis. Hoarseness is a common symptom of this disease; it is usually coincident with a more or less deep-seated and extensive laryngitis. In fact, besides a superficial inflammation of the laryngeal mucous membrane, deep-seated

\* Von Rosen, *Behrend's Syphilidologie*, vol. iii., p. 249, 1860.

† Forster, *Wurzburg Med. Zeitsch.*, vol. iv., p. 7, 1863.

‡ Wagner, *Das Syphilom*, etc., *Arch. der Heilkunde*, vol. vii., p. 527.

§ Kantzow, *Arch. der Path. Anat. und Physiol.*, vol. xxxv., p. 211, 1866.

|| Schuppel, *Ueber Peripelephlebitis syphilitica bei Neugeborenen*, *Archiv der Heilkunde*, vol. xi., p. 74, 1870.

ulcerations of the internal surface of the larynx, and, occasionally, primary or secondary perichondritis are found; lesions which are all capable of causing a constriction, but slightly compatible with life. Thus Frankl \* has seen in a child, a few weeks old, a deep ulceration of the mucous membrane, with perichondritis of the cricoid cartilage and constriction of the larynx. Moreover, Gebhardt † has induced recovery, by means of iodide of potassium, from a probable constriction of the left bronchus, in a syphilitic girl six years of age, whose larynx was diseased.

The changes which occur in the lungs are of two orders: diffused, and as a lobular pneumonia; circumscribed, and as nodosities similar to the gummata of adults. Devergie ‡ was one of the first to describe the diffuse lesions. He reports that two well-formed, full-term children died immediately after parturition, which had not been laborious. The lungs were very voluminous, compact, carneous, denser than in the normal state, very heavy, discolored, and pallid; sank into the water, even when cut in pieces. There was a colorless serous infiltration of their tissue, which was expelled with difficulty from the cellular tissue. On insufflation the air did not penetrate into them. This alteration was neither scirrhus nor the white induration which precedes the suppuration of tubercles; it was a kind of *lardaceous hardening, intermediate between the lardaceous scirrhus state and the ordinary softening* of the pulmonary tissue of the new-born children. Ch. Robin and Lorain § have carefully studied this particular condition of the lung, which they call epithelioma. C. Hecker, ¶ Virchow, ¶ and F. Weber \*\* have published facts relative to this alteration, which Howitz †† calls syphilitic infiltration of the lung. Ranvier ‡‡ has given an exact histological description of changes observed in a new-born syphilitic child, whose lungs had undergone a similar alteration.

Lungs thus affected fill nearly the entire cavity of the thorax, and frequently retain the impression of the ribs; their surface smooth and marbled, with the exception of being paler, differs

\* J. Frankl, Syphilit. Geschwaere und Verengerung der Larynx, *Wien. Med. Wochenschr.*, vol. xviii., p. 69-70, 1868.

† C. Gebhardt, *Arch. f. Klinik. Med.*, vol. ii., p. 547, 1867.

‡ Devergie, *Annales d'Hygiène et de Méd. Leg.*, April, 1831.

§ *Gaz. Médicale*, 1855, p. 186, and *Bull. de la Société de Biologie*.

¶ Verhandl. der Berliner Gesellsch. f. Geburtsh., vol. viii., p. 126.

¶ *Gesamm. Abhandl.*, p. 595.

\*\* *Beiträge zur pathol. Anat. der Neugeborenen.*, ii., p. 47.

†† *Hospit. Tidende*, Nos. 10-11, and *Behrend's Syphilidolog.*, 1862, vol. iii., p. 601.

‡‡ *Gaz. Méd. de Paris*, 1864, *Comptes Rendus des séances de la Société de Biologie*, 3me série, t. iv., 1863, p. 51.

but little from that of the lungs filled with air. These organs are firm, heavy, of greater density than water; they are but sparsely crepitant, and cannot be insufflated like the healthy lungs of the fœtus. As the air, which penetrates to a few points only, is arrested at others, there results a partial emphysema from the rupture of a few of the pulmonary vesicles. The altered portions of the parenchyma are resistant and cut smoothly; the surface of the section is even, smooth, brilliant, of a white barely rose (flesh) color, occasionally marbled with white spots on a reddish ground. Coincompact masses are seen on it, separated by thickened interlobular partitions, and having the consistency of hepatic tissue; it is a form of very firm hepatization. The fine ramifications of the bronchial tubes and blood-vessels are generally contracted in consequence of the compression, the bronchial tubes are sometimes filled with purulent mucus and a small proportion of air. The microscopic examination reveals that the alveoli are completely effaced, or only contracted, irregularly square or hexagonal, or else closely partitioned and is lengthened like spindles; the inter-alveolar connective tissue is thickened, in most cases, by cytoblasts and cells of new formation more or less atrophied, or else undergoing the fatty metamorphosis.

This pulmonary infiltration, or syphilitic induration of the lungs, differs from the gray hepatization by the greater hardness of the diseased parenchyma, its resistance to pressure, its whitish or rosy coloration, and by the nature of the concomitant manifestations. The bronchial ganglia are increased in volume and have a reddish or yellowish gray tint.

The circumscribed pulmonary lesions have been reported by Portal, in a case in which, notwithstanding the somewhat tardy appearance of the pulmonary lesion, appears to be established beyond question.\* "In the body of a child born of parents infected with venereal virus, and who died at three years of age, true venereal pustules were found on its external surface; the glands of the neck were swollen; those of the mesentery, of the groins and axillæ were obstructed and filled with a whitish humor of a pulpy consistency. The right lung had been almost entirely destroyed by suppuration; there were a few abscesses in the upper lobe of the left lung, and the remaining substance of the lower lobes was as hard as horny leather; the pulmonary artery and cavities of the right heart were very much dilated, and the muscular substance of the ventricles singularly softened." Actually the lesions referred to have only been truly known since

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\* *Observ. sur la Phthisie Pulmonaire*, vol. i., p. 530, 1809.



the researches of Professor Depaul.\* This author, as early as 1837, indicated the connection of causation between them and syphilis, and later reported two cases, in an academical memoir, in which they are clearly described. In one of these cases the only product observed was a swelling of the size of a small nut, projecting, of a yellowish tint, and softened in its centre. In the other, the upper lobes of the lungs contained an irregular, rounded mass, and of the size of a large nut. Other and smaller masses were scattered in the other lobes: there were six in the right and five in the left, the smallest about as large as a hazel-nut; these various kernels, on incision, were found of a grayish yellow, compact tissue, and in the centre of each one a cavity, from which flowed a yellowish sero-purulent liquid, and varying in quantity according to the extent of the induration. This pulmonary lesion has been observed by Ch. Desruelles in a foetus affected with pemphigus and with the alteration of the liver we are familiar with. C. Hecker† and Virchow‡ have also observed it; finally Lebert§ has had a drawing made of a gummy tumor found in the lung of a child affected with congenital syphilis; and I, with my friend M. Landeta, have observed a similar case. §

A new-born child, of a rather puny appearance and affected with a pemphigus, its principal seat being on the palmar and plantar surfaces, died in 1863, a few days after its birth, in the service of M. Vigla, at the Hôtel Dieu. The mother, whilst denying all syphilitic antecedents, also refused to make any statement regarding the father's health. The brain, liver, and kidneys appeared to be intact; in one of the lungs there was, near the central portion, a rounded tumor about as large as a small hazel-nut, of a yellowish-white color, tolerably consistent at its periphery, but softer in the centre. This was surrounded with a zone of fibrous tissue, and in the vicinity the pulmonary parenchyma was perfectly healthy. Towards the base, and in the thickness of the lower lobe, there was another tumor having the shape of a bean, and the umbilicus of which was filled by a grayish and vascular tissue; there was also on the surface of the lobe a fusiform tumor, smaller but firmer than the preceding ones. The structure of these tumors was not altogether identical; fine fibres of connective tissue, between which were interposed numerous elementary granulations, formed a great portion

\* *Bull. de la Société Anat.*, Nov. 1837, and *Mémoire sur une Manifestation de la Syphilis Congénitale* (Mém. de l'Acad. Imp. de Médecine, Paris, 1853, vol. xvii.).

† *Verhandl. der Berlin. Gesells. f. Geburtsh.*, vol. viii., p. 126.

‡ *Gesamm. Abhandl.*, p. 595.

§ *Anat. Pathol.*, 1857, pl. clii., fig. 3-4.

§ *Gaz. Hebdom.*, 1864, p. 649.

of their structure. These elements were abundant in the peripheral portions ; but towards the centre there were only round or elliptic and very granular globules ; then in the central portion only molecular fatty granulations were found. Martineau has reported a case of pulmonary lesion in a child who died in three days, and of which Cornil has given very complete micrographic details. Here, however, the syphilitic origin of the pulmonary lesion might appear doubtful, as the child did not have any sign of pemphigus, and that the mother only contracted syphilis towards the fourth month of her pregnancy.\*

In all of these cases the alteration shows itself under the form of more or less numerous tumors, varying in size from a pea, a hazel-nut, to a walnut, and these tumors, perfectly circumscribed, firm or softened in their centre, and of a yellowish color, do not differ from the gummy lesions of acquired syphilis. The various degrees of development or alteration of the elements of the connective tissue appropriate to a diffuse infiltration, less the epithelial cells, are found in them. The zone of fibrous tissue which occasionally surrounds them, their relatively inconsiderable number, and their microscopical characters also, are so many circumstances which enable the distinguishing of them from the true tubercle of the lung—a very rare lesion at that period of life.

Particular functional troubles, slightly different from those met with in the adult, but more difficult to observe, owing as much to the condition of weakness as to the rapidity of a fatal termination in affected children, are the consequence of these alterations. When possible, the physical signs indicated by exploration are dulness and the absence of the vesicular murmur. The children are more frequently prematurely born, they are more frequently weakly, yellowish, cachectic, poorly developed, and are affected with pemphigus, which specially occupies the palmar and plantar surfaces. Visceral lesions, and particularly alterations of the hepatic gland, occasionally co-exist with those affections ; life is seriously compromised, and death is not delayed ; it generally occurs in the first month after birth. A precise diagnosis is difficult ; but in the presence of a pemphigus of the extremities and of a cachectic condition, accompanied with dyspnoea, there is reason to suspect the existence of a hereditary syphilitic affection of the respiratory apparatus.

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\* *Bull. de la Société Anat.*, 1862, p. 486. Examine Forster, *loc. cit.* Kobner, *Klinische und experim. Mittheilung*, etc., p. 117, Erlangen, 1864. Baerensprung, *Hered. Syphilis*, p. 103-108, pl. vii.

**AFFECTIONS OF THE ORGANS OF INNERVATION.**—The alterations of inherited syphilis are not rare in the nervous centres; their frequency appears proportionately with the care with which they are studied. Robin has found a cerebral sclerosis in a child who died in the service of Legroux,\* and which could be regarded as appertaining to inherited syphilis. A similar alteration has been observed by Potain in the spinal cord of two foetuses, as follows:

About the month of February, 1863, a woman, in about the fifth pregnancy, was admitted to the Salle Saint Antoine of the Hôtel Dieu. She complained of gastralgia and of violent pains in the head, and which were all signs of chloro-anæmia. As the cephalalgia was persistent, and especially at night, M. Potain believed, notwithstanding the denials of the patient, in the existence of syphilis. He found the cervical ganglia tumefied and painless, inguinal ganglionic pleiads, and several mucous papules on the margin of the anus. A moderate mercurial treatment (proto-iodide of mercury) was then ordered, and the pains of the head diminished. One month after admission the patient gave birth prematurely, without accident, to two twin girls, who lived three days, and on whom no syphilitic indication could be observed during life, and no morbid symptom. There was extreme debility in one of them.

The autopsy revealed in the two foetuses the particular alteration of the liver described by Gubler, but to a very slight extent—about the size of a large pea on the lower border of one, and on the anterior border and upper surface of the other, near the falciform ligament. At these points a yellowish semi-transparent coloration, slightly opaline, induration, and an absence of vascularization was noticeable; in a word, all the characters of the alteration described as syphilitic. There was nothing of note in the other viscera, thoracic or abdominal.

The brains did not appear to be altered; they were of the usual soft consistency of that period of life. The spinal cord of one of the foetuses appeared to be normal on section; its furrows and cornua of gray substance were readily recognized. The microscope revealed very distinct nerve-tubes; whilst the cord of the other one was, in all its extent, diminished in volume, hard, without any trace of separation between the substances, and altogether like a fibrous tendon, except in coloration, which was of a reddish gray. With the aid of the microscope, M. Potain was unable to discover any nerve-cell, and hardly any distinct nerve-tube. All the cord appeared to

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\* *Union Méd.*, June 19, 1868.

be formed of condensed laminated tissue, felt-like, and mixed with an abundant granular substance. The examination of the two cords was made simultaneously, and the great difference of structure between the two was ascertained beyond a doubt. The spinal meninges did not appear to be altered.

Besides this diffuse alteration, there is a circumscribed or gummy one of the same nervous centres met with. The meninges and brain may be affected by it. Thus, Howitz\* has found in two children, born of syphilitic mothers, a yellowish caseous exudation along the course of the vessels of the arachnoid, on the superior and lower surfaces of the hemispheres. Cruveilhier† found, in a full-term child having cutaneous pustules and a lobular pneumonia, at the point of union of the supra-orbital plates with the vertical portion of the frontal bone, the dura mater infiltrated with a well-formed pus which separated its meshes. The bones denuded were eroded through a portion of their thickness, and the corresponding periosteum was thickened. Virchow has seen in the cerebral substance of new-born syphilitics small whitish or yellowish centres formed by masses of fatty granules.‡ In a child two years of age, affected with paralysis of the motores oculorum, De Graefe found several centres of cerebral softening; § and in a child affected with an abscess of the arm, which was probably only a suppurating gummy tumor, Hutchinson and Jackson|| were led to believe that there was a syphilitic deposit compressing the cord and affecting the roots of the nerves.

Hydrocephalus is another form of alteration, which, according to some observers, is occasionally connected with inherited syphilis. Haase¶ reports a case of a woman who was affected during the first half of her pregnancy with a chancre; her husband had had chancres and a syphilitic angina. This woman had had three still-births at the eighth month. In her fourth pregnancy she gave birth to a hydrocephalic child, with paralysis of the left side, and the skin covered with disseminated purple spots. This child died in six months. A full-term child, with a livid and dark-red skin, was born at the fifth pregnancy. The sixth pregnancy brought forth a boy, who was

\* Howitz, *Behrend's Syphilodologie*, 1862, vol. iii., p. 604.

† *Anatom. patholog. du Corps humain*, liv. xv., p. 6.

‡ *Syphilis Constitut.*, p. 4. Examine Schott, *Mayr's Geitschr. f. Kinderheilk.*, iv., 4.

§ *Archiv f. Ophthalmolog.*, i., p. 443.

|| Syphil. Affect. of the Nervous System, *Med. Times and Gaz.*, vol. ii., p. 84, 1861.

¶ *Allgemeinen Med. Ann.*, p. 194, Febr., 1829, *extr. in Arch. Méd.*, 1er série, xxiii., 436, 1830.

affected in his second year with scrofulosis and serpiginous crusts. De Méric\* is also disposed to accept the influence of syphilis in the production of hydrocephalus; he has on several occasions observed a large development of the head and a peculiarly rotatory movement of the eyes in children born syphilitic. We have been led to admit this pathogeny,† which is corroborated by the authority of Doctor Roger. One of our provincial friends relates to us, that being surprised at a woman giving birth to several hydrocephalic children, and desirous of ascertaining the cause of this, he learned that the father had formerly contracted syphilis in Paris. Let us add that Hutchinson has observed a child eight years of age, who was hydrocephalic, epileptic, partially idiotic, and who had double cataract and defective teeth.

The symptoms connected with these lesions are but little known, or at least difficult to study. Bertin, and more recently Pittschaaft,‡ have observed that children of a syphilitic father are frequently troubled with obstinate insomnia. René Vanoye§ has corroborated this assertion. Frequently accompanying this symptom are either general or partial convulsions,|| or more or less extensive and complete paralysis,¶ all phenomena depending upon the seat and extent of the lesion. The numerous manifestations spoken of here are occasionally observed during intra-uterine life, and their usual result is the induction of abortion. More frequently they develop themselves shortly after birth, and are nearly always fatal; and less frequent in adults, they are also much less serious. Pretty generally at the time of birth and the few days following, the child hereditarily affected with syphilis appears to enjoy perfect health; but soon symptoms manifest themselves which reveal the disease with which he is affected; there is first a difficulty of nasal respiration, usually attributed to a cold. Cracks and fissures occur in the vicinity of the natural openings, and then various eruptions manifest themselves on the cutaneous surface. However, as stated by Rosen, all these symptoms are not met with in the same subject; one presents more, another less. During this period the general health is languishing, the child suffers and grows thin, he has insomnia,

\* Lettsomian Lectures on Syphilis, *Lancet*, Sept. 18, 1858.

† L. Gros et Lanceraux, *Traité des Affect. Néro Syphilitiques*, Paris, 1861.

‡ Quoted by Bertherand, *Traité des Maladies Vénér.*, p. 327, 1er édit.

§ *Jour. de Méd. et de Chirurg. Pratiques*, p. 273, 1849.

|| Radcliffe, Epilepsy in a Child affected with Congenital Syphilis, *Lancet*, ii., p. 634, Nov. 20.

¶ Bacon, Congenital Syphilis, Hemiplegia, and Cecity, *Med. Times and Gaz.*, Nov. 21, 1868.

his cry becomes modified, and when the visceral lesions become added to this state, he falls into cachexia and marasmus. "The face," says Trousseau,\* "is of a special brownish tint; it appears as if coffee-grounds or soot diluted with an ample quantity of water had been passed on it; it is neither paleness, icterus, nor the straw-yellow of the other cachexias; this tint, much lighter than the mask of the lying-in women, hardly extends to the remainder of the body." If primarily robust and well organized, the syphilitic child becomes weak and sad, emaciates slightly, and remains rather puffy; his digestive functions are usually disordered, vomits, has a frequent and obstinate, occasionally sanguinolent, diarrhoea. The debility is such that death may result from syncope, if not from marasmus or of a complication like erysipelas and pneumonia, affections which are almost always fatal. Recovery is not to be hoped for when syphilis manifests itself at birth; it is rare when the disease occurs in the early months of life. Nevertheless there are children who first have superficial eruptions, a coryza or slight stomatitis, and are subsequently so well that the mother believes them to be entirely cured. But it is important to know that this state of well-being is ordinarily but momentary; later, lesions manifest themselves, more frequently symmetrical of the eyes (keratitis, choroiditis, amaurosis); of the skin and mucous membranes (serpiginous or phagædenic ulcerations); and of the bones (periostoses, exostoses), etc. These manifestations, separated from one another by a condition of apparent health, recall the latent state of acquired syphilis.

As he advances in age, the child affected by the syphilitic germ presents manifestations which have the tendency to limit themselves more and more, and to become something like the accidents of acquired syphilis. The viscera, the liver, lungs, and brain may be the seat of it. Unfortunately these accidents, as much more difficult to connect with their true origin as the individual is older, too frequently pass unnoticed; in order to suspect them, it is of the utmost importance to be thoroughly acquainted with the modifications, which the early manifestations of inherited syphilis do not fail to leave behind them. Thus, frequently the physiognomy of the individual who has inherited syphilis presents something, so to speak, typical. The skin, of a dirty tint, pale or leadish, is thickened, rough, and flabby; it rarely presents that handsome, clear coloration of scrofulous persons. On the face are seen cicatrices which have a predilection for the angles of the mouth, from which they

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\* *Clinique Médicale de l'Hôtel Dieu*, vol. i., p. 665, Paris, 1862.

radiate on the cheeks. The forehead is usually large and prominent at the frontal protuberances, and occasionally there is a large depression a little above the eyebrows; the hairs are light, dry, and their ends split. The root of the nose is large, spread out, or even flattened. The permanent teeth, or those of second dentition, have an altogether special appearance. The superior central incisors are noticeable by their shape as well as by their color and size. At first these teeth are short, narrow from one side to the other, very thin at their edge; after a certain period a portion of this border, under the shape of a crescent, breaks off, and leaves a large, deep, and vertical notch, which persists during several years, and finally disappears twenty or thirty years later, in consequence of the premature wearing out of the tooth. These two incisors, sometimes converge towards each other, occasionally are apart and neatly separated. They are covered with horizontal depressions or notches, but which are not in any manner constant.

Sometimes intact and brilliant, the eyes at others bear the trace of an old or recent alteration, synechias with or without deformity of the iris, a chronic interstitial keratitis (Hutchinson). The importance of the last lesion is such that many authors have a tendency to make it a pathognomonic sign of the hereditability of syphilis, and as it is frequently coincident with the changes in the dental apparatus, the union of these two conditions does not fail to have a great weight as regards the diagnosis. These local modifications are usually accompanied with a relative condition of weakness, also an arrest of development of the entire body, or only of one or several organs. These deviations of type, ordinary consequences of material lesions occurring either in the course of intra-uterine life, or later, during the first years of life, are worthy of fixing the attention. In a case we have reported elsewhere, note is made of an arrest of development in the genital organs, and the following ones are example of malformations none the less serious, which establish beyond a doubt the degeneracy of the human race by means of syphilis:

*Tardy inherited syphilis.—Idiocy, Epilepsy, Microcephalia.*

CASE I.—The woman X—, apparently healthy, was treated by me for neuralgias and an alopecia, when I was a substitute for Dr. Martelière, charity physician of the second district. This woman, who believed that her husband had suffered from syphilis, does not assert that she has been exempt from any accident connected with this disease. She has given birth to four children; one died at seven years of age, another at three, and a third at two years of age; she has had four miscarriages, three at seven months and a half, and the fourth at two months. The only child left is

twelve years of age, and does not appear to be more than six or eight. His head is extremely small, and already the cranial bones appear to have grown together.

This child walks, provided he is led; he is almost entirely deprived of intelligence and memory. He does not talk, and it is with difficulty that he can be made to say one and two. He cannot protrude the tongue out of the mouth, although the mobility of this organ is intact. Obstinacy, habits of masturbation, and since two years of age epileptiform attacks. The organs of sight and hearing are intact, the nose somewhat large and flattened. The two first incisors are notched and covered with small depressions, the two other incisors and the canines hardly protrude beyond their alveoli. There is a true arrest of development of dentition. At the upper portion of the tibia, a fistulous opening, or necrosis existing since several months. (Syrup of the iodide of iron. Local applications of the tincture of iodine.)

#### *Inherited Syphilis and Various Malformations.*

CASE II.—A woman, D—, 25 years of age, was admitted to the Hôtel Dieu in March, 1863. Her father died of pulmonary disease, and her mother of cancer of the stomach. Perfectly healthy until the time of her marriage (sixteen years). She noticed, about a month later, a few pimples on the genitals, which were soon followed by roseola and angina. (Pills, Comp. Syrup of Sarsaparilla, Cuisinier's.) She had a miscarriage in six months. A second pregnancy occurred, and at the ninth month gave birth to a child, who is still living. This child was very much emaciated at birth, and his mother was unable to nurse to him. He did not appear to have had any cutaneous eruption during the first years of his life. Later he had a hard tumor of the neck, which suppurated. To-day, ten years of age, he has had since two years a double kerato-conjunctivitis, which markedly affects vision. Opaque at several places; the cornea is also ulcerated. The lids are adherent at the external and internal angles, leaving an opening through which the field of the cornea can be seen. The incisor teeth are bicuspid, large and short, transversely striated. General development incomplete, head small, and a propensity to anger.

Mrs. D— had a third pregnancy, and at the seventh month gave birth to a little girl. Now, nine years of age, healthy, her nose flattened at the base, the teeth apart and bifid. Since then she has had three pregnancies, two of which arrived at term. The children died on the second day. The third pregnancy terminated at the sixth month. Syphilitic tubercles manifested themselves in the mother during the progress of the latter, notwithstanding the administration of a specific treatment.

Mercury and iodide of potassium are the appropriate agents to oppose to the visceral lesions of inherited syphilis; the ioduretted preparations are especially preferable when these manifestations are accompanied with a cachexia. Gubler advises, in the hepatic affections, the use of the iodide of potassium in one and a half grain doses; as for me, I cannot too highly recommend the iodide of iron, the good effects of which I have frequently been able to determine. This remedy is administered in the form of syrup, in doses of a tablespoonful a day,



in half a glass of sweetened water, or in a cup of infusion of linden. An appropriate diet, baths, and a proper hygiene are adjuvants of the greatest utility.

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### ACNE AND ITS TREATMENT.\*

By TILBURY FOX, M.D.

No one at the present day will, I imagine, deny that dermatology is earning a reputable character and a scientific status to which it has been an entire stranger until recent times, and, in truth, to which it has had no real claim until the last few years. This progress is to be ascribed to two main causes: the one is the light thrown upon morbid changes in the skin by the investigations of the pathologist; and the other, the greater attention which cutaneous medicine has received at the hands of the physician.

Thanks to pathology, we now know with tolerable accuracy what are the exact changes that go on in the various diseases of the skin—what, in fact, are the natural histories of most of them. We are beginning also to learn that there is nothing special about the morbid changes that take place in the skin, in comparison with morbid alterations occurring in other parts of the body.

If we make out a list of the diseases of the sebaceous glands, for example, we shall find diseases of function, viz., excess or diminution in amount of, or alteration in, the character of the secretion; organic changes, including obstruction in the duct and its consequences; hyperæmic conditions from various causes; hyperplastic states; neoplastic growths in and about the walls; degenerative changes, and so on, which have their counterparts in the liver or the kidney.

The improved knowledge which we have already gained concerning the nature of diseases of the skin is leading the dermatologist to forsake empirical guides, and to treat these maladies upon philosophical principles—according, in fact, to the same principles that govern the physician in his dealings with diseases of the body in general,—allowance being of course made for the fact of the peculiar exposure of the disordered skin to the operation upon it of external influences. It follows as a necessary consequence of the recent revelations of

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\* Read before the Medical Society of London.

pathology in regard of dermatology that the best preparation for the study of that science is a knowledge of general medicine; and I for one firmly believe that the advance of dermatology has been as much retarded from the subject having been considered for many years past from an almost exclusively surgical, as it will be advanced in the future by dealing with it from a medical, point of view. The physician, with the aid of the pathologist, is defining the modifying influences exerted upon skin mischiefs by coincident derangements of internal organs in some way functionally related to the surface, by constitutional causes, by climate, by hereditary influence, by age, and a host of other minor agencies.

When the belief in the origin or modification of skin diseases by derangements of internal organs is more firmly fixed in the professional mind, and acted upon in practice, I am sure that the therapeutical results obtained in cutaneous medicine will be far more real and satisfactory than any of us are now inclined to think possible or probable.

These remarks have their special applicability to the case of acne and its treatment. Acne, when fully developed, might be defined, and is usually simply defined, as an inflammatory state of the sebaceous glands and their follicles, and perhaps the perifollicular tissue, due as a rule to irritation induced by the plugging up of the duct by inspissated secretion, which may perhaps have undergone some chemical change whereby it has acquired an acrid quality. But this description does not satisfy me; for the inflammatory condition in acne is modified as to its extent, its persistence, and its character by various conditions, such as hereditary peculiarity; by constitutional or diathetic conditions, as struma; by derangements of internal organs, as dyspepsia; by altered states of the blood-current, as in gouty persons; and by local influences acting directly upon the seat of the acne, as external irritants. It is necessary, therefore, to regard acne as composed of a primary and essential condition, the plugged and inflamed gland and duct; and a number of secondary items, which influence and modify this inflammatory state, and which must be looked at from the physician's point of view.

I now proceed to comment upon these various components of acne in detail, to show what the disease in its several parts is, and shall then speak of the treatment.

*Firstly,* As to the altered sebaceous secretion. This consists in an excessive production of sebum, and a certain alteration in quality, viz., an inspissation. This may be an hereditary peculiarity: acne runs in families, to use a common mode of expres-

sion. There is no reason, of course, why acne should not be an heirloom as much as psoriasis or any other skin disease. The practical point with which we as practitioners are chiefly concerned in regard to hereditary tendencies to acne, is the necessity of adopting early measures to keep up the healthy action of the skin, and to improve the general health about the time that acne may be expected to show itself in order to prevent the development of the disease, or at least to mitigate its severity, and the consequent disfigurement.

*Secondly*, Excessive secretion of sebum is, in my opinion, not unfrequently observed in lymphatic and strumous subjects, who are liable to be attacked by acne in undue proportion. I mean by lymphatic, such as are pallid; such as possess what is generally termed a "slow circulation," indicated by cold hands and feet, which are frequently "damp" as well; such as are naturally languid physically, and perhaps mentally, and whose condition is one that may be placed at the border-land of struma,—such persons often having what may be very truthfully termed a "greasy" skin, the sebaceous glands being preternaturally active. It may be said that the altered sebaceous secretion, and the primary congestion of the sebaceous glands, may be due after all to the torpidity of the circulation through these glands in such cases. I do not stay to argue out this point, because those who hold it admit the predisposition to acne in lymphatic subjects. To those who do not admit that these latter are specially inclined to acne, I can only now assert that my experience teaches me they are.

It might be supposed that simple congestion, however produced, of the face and back, would tend to the outbreak of acne, but this by no means seems to be the case. There must be a tendency to gland disorder itself, it would appear, and then superadded congestion aggravates the disease; or, as I am prepared to admit, given the tendency to acne, the occurrence of congestion of the face may act as the excitant of acne; but, practically, congestion of the face does not excite but aggravates acne when once produced.

*Thirdly*, There can be no doubt that the most common determining occasion of acne is the physiological activity of the glands and related follicles which is observed about the period of puberty. When an organ is physiologically active it is more than usually liable to become disordered, to be congested or inflamed should anything occur to interfere with the proper fulfilment of its office, particularly, of course, if an increased supply of blood is given it, and the circulation of this blood through it is opposed. At the time of puberty there is a great

increase in the formation of hair over the body, and especially where acne occurs. The follicles now grow the whisker and moustache, and receive more blood as they do more work, and so do the sebaceous glands which are concerned in supplying the greater amount of sebum demanded of them. But I think, independently of the hair formation, the skin, and especially that of the face, assumes a greater activity at the time of puberty. The entire man takes a rapid stride forward, as it were, in growth and development; and the skin functions feel the effect of this change. The face becomes plumper, broader, fuller of blood, and retains less and less every day that of the boy or girl, assuming more the behavior and characters of those of men or women; and the circulation of the face is much influenced by sexual and emotional occurrences, as we all know. But there is a particular object, it seems to me, to be gained by this increased activity of the facial circulation as a whole, and the glands in particular. Necessity exists for providing against the increasing number of contingencies to which the face, as an exposed part of the body, is subjected, in the common and constant operation upon it (now that adult age is being reached, and the man begins to earn his daily bread) of ordinary external stimuli, such as cold, heat, wind, and the like. A large supply of fatty secretion is required for the protection of the face, and this nature supplies, in accordance with her invariable practice in adapting herself to new natural conditions, and in meeting natural wants. No doubt the stimulus of exposure excites the circulation of the face. I am quite prepared to meet the objection that acne occurs oftentimes in the back, which is not exposed, and where no excessive gland growth, or gland functional activity, shows itself. I at once reply that physiological activity of the glands and facial circulation constitutes only one condition favorable to the occurrence of acne. Acne of the face is often seen without acne of the back, and *vice versa*; acne of the back is frequently seen in lymphatic and strumous individuals, and these come of a phthisical stock, and the acne is due to torpid circulation, and, perhaps, commonly want of proper attention to hygienic measures in a not easily got at part. Now, in a healthy person, physiological activity of the glands will be carried on without any diseased condition resulting. There are many influences, however, that tend to interfere with this healthy gland action, and these are the conditions which before I spoke of as exciting or secondarily influencing or modifying acne.

These conditions act in two chief ways: *firstly*, by increasing the hyperæmia of the face or back; and, *secondly*,

by modifying the character of the inflammatory hyperplasia.

Now, hyperæmia of the glands and skin of the face is increased by—(1.) Agencies acting directly upon the seat of acne as external irritants, such as exposure to heat, cold, and the like. (2.) Agencies that interfere with the gland or facial circulation at the time when these are actively exercised, such as uncleanness; general debility, from whatever cause this may arise, *ex gr.*, living in a vitiated atmosphere in crowded rooms from hour to hour, as is the case with seamstresses; want of proper exercise; insufficient diet. (3.) Conditions which act physically in blocking up the apertures of the gland-ducts, such as following occupations which necessarily surround the worker with an atmosphere charged with minute particles of dirt or dust. (4.) Altered blood-states, such, for example, as that in which the blood-current is charged with effete products, collected in it from deficient action of the emunctory organs, especially the bowels and kidneys. (5.) General plethora, to use an old expression; and, (6.) most important perhaps of all, by reflexed irritation, as in the case of the existence of dyspepsia or uterine disorder. These several conditions, no doubt, as the rule, aggravate the hyperæmia of the acne rather than produce that disease; but at the same time they may excite acne in a predisposed subject. Further, although I have assumed that acne is the result of the plugging of the fat-glands by secretion, I am by no means sure that it may not follow without this antecedence, and from simple hyperæmia of the gland excited in a variety of ways, and in a person not specially predisposed to acne.

But I said that there were influences that modify the character of the inflammatory hyperplasia. In some cases of acne (*A. simplex*) there is little hyperæmia; then it is probable that the before-mentioned aggravants of hyperæmia are absent or but slightly marked; whilst in other cases in which the hyperæmia is severe, and the bases of the acne spots are large, red, and indurated (*A. indurata*), then it will be found that they are present in greater force and varying concomitance; and where they have been more or less persistent, the long-continued hyperæmia has necessarily been followed by hyperplasia and induration. Again, in other cases of acne, the suppuration is free, at the same time that the inflammatory base is livid and well marked—that is to say, the connective tissue around the gland is involved in the disease, whilst pus readily forms; and these conditions occur in strumous subjects, and constitute the modification which acne undergoes in connexion with the stru-

mous diathesis. In acne rosacea there is hyperplasic growth of connective tissue, no doubt in a great degree favored by the presence of uterine disorder, which by reflex action keeps up a severe degree of hyperæmia of the face.

Given, then, the predisposition to acne, which may be in the form of an hereditary tendency thereto, or, as is generally the case, a physiological activity of the glands, the acne will be severe in proportion to the extent of the hyperæmia and the length of its continuance; and these conditions of hyperæmia themselves depend upon the presence or absence—and if presence, the degree in which, and the length of time during which, they continue to operate—of external irritation, dyspepsia, uterine disorder, debility, a loaded state of system, or mal-hygiene. The character of the inflammation will depend also in some degree upon the constitutional bias of the individual.

Now, I hold that these are all-important considerations in regard to the treatment of acne. They are very practical in their bearing, too, or I would not have dealt so fully with them. It must be evident, if what I have already said be admitted to be true, that, in acne, as in all other cutaneous ailments, it is absurd to look for specifics for its cure. Each case must be treated upon its own merits. It is true, there is the essential thing, the acne present—the choked and inflamed gland; but then the concomitances or accidental accompaniments vary in different individuals. The proper treatment to be adopted should be a mixed one, composed of the treatment for the mere acne itself, and also that adapted to the individual. There is a great deal too much of mere name-treating in dealing with skin diseases. The disease is so-and-so, and *therefore* such-and-such a remedy is to be given, is the assertion of most men. To treat acne properly needs the best skill of the physician, taking cognizance of the degree in which a variety of conditions, operating from within and without upon the individual, exist in any given case.

I will now turn to the question of therapeutics, so as to give a practical shape to the principles I have now enunciated; and, in doing so, I shall refer to several groups of cases of acne, which may be taken to portray the more common combinations of the conditions which influence the hyperæmia or the character of the hyperplasia in acne; for the modifying conditions I have referred to occur together in very different combinations.

First, however, as regards the general principles of treatment. These consist, as regard preventive measures, in keeping up the general health, and especially a vigorous action of the skin functions, so that the follicles may be kept emptied of their

contents. Good friction of the healthy skin, and thorough ablution with a non-irritating soap, are good to this end. But I need not say more on the point than this, that those causes which lead to hyperæmia of the face should not be allowed to operate.

The treatment of acne itself, as a whole, consists in preventing acne punctata from passing on to acne vulgaris, by getting rid of obstruction in the glands, by checking the hyperæmic condition; acne indurata, in diminishing hyperæmia and promoting the absorption of inflammatory products; and acne rosacea, in checking hyperæmia, and destroying the new growth of connective tissue. Now, it will be observed how much stress I lay upon checking hyperæmia; and this is to be effected not in one, but in various ways, since the causes of its presence are various. Hyperæmia may be controlled by internal remedies, by local remedies, or by removing conditions that by reflex action gave rise to its continuance. But its disappearance may always be helped out by excluding the air from the face as much as possible. In the chronic stage of the disease, revulsives and irritants may be used; but I am sure harm is always done if the disease be acute, or, in its early stage, if the hyperæmia be severe, by remedies other than those that soothe. Why should we treat an hyperæmic or inflamed skin-gland differently from that of any other inflamed gland or part?

Next, it is necessary to prevent the operation of the several causes of intensification of hyperæmia to which I have referred, and especially dyspepsia, uterine disorder, constipation, and a loaded state of the system. Having done this, we may tone up, and remove, by special means, the consequences of the hyperæmia, viz., the induration by stimulants, absorbents, astringents, and caustics, if need be; and counteract any strumous tendency by cod-liver oil and the like, and so prevent or diminish the implication of the perifollicular connective tissue or the pus formation, if excessive.

Now for the application of these principles to the treatment of the several classes of cases that come to the practitioner for treatment.

For practical purposes, cases of acne that most commonly come to the physician for treatment are divisible into four classes.

In the first may be placed the young boy or girl of lymphatic temperament, come, perhaps, of a phthisical or strumous stock, and with languid circulation, pallid countenance, more or less anæmic conjunctivæ, and belonging to a family amongst the members of whom acne is common. Such a patient may suffer

from no dyspepsia, but the tongue is not clean, and the bowels are irregular. The indications as regards the general health are those of debility and semi-anæmia; the acne, in fact, being more less hereditary, perhaps its development is favored by the debility connected with the lymphatic temperament. The acne attacks the face and back. If the strumous tendency of the patient is marked, the acne spots have a large, more or less livid, base; whilst the suppuration in their centre is marked, and the spots leave behind well-marked cicatrices.

Now, in such cases as these, a general tonic regimen is needed, with good diet, good air, moderate exercise, regular hours, frequent bathing, and the avoidance of sedentary habits and occupation. There is usually malassimilation, and, as I think, especially of fat, which indeed is avoided in the food. The medicinal treatment required for this malassimilation consists in the use of the mineral acids with bitters, pepsin, with iron if the patient be pallid, and, finally, iodides and cod-liver oil, and fatty matters in the way of fish, eggs, milk, butter, cream. Ioduret of iron, or arsenic if preferred, is to be commended. But it is likewise necessary to exhibit simple aperients to get the bowels to act regularly. The cod-liver oil should be pushed in proportion as the evidences of struma are marked. As regards local treatment, this depends upon the degree to which the acne is developed. Supposing there be very little hyperæmia about the acne spots, and they take the form rather of comedones than those of acne simplex, it may be advisable to wash the part very freely with a mild soap and water, using gentle friction subsequently, together with an astringent or a mild sulphur wash or ointment.

For my own part, I avoid doing this—which is supposed to loosen and get rid of the sebaceous plugs in the follicles—if there be dyspepsia present, or the face is in any degree liable to become flushed under stimulation of any kind.

The German plan is to soap almost everybody for acne. Well, the English and Germans, in my experience, are not the same people. I much prefer, where there is hyperæmia, hot-water bathing, or bathing with a mild alkaline wash of carbonate of soda, and the use of the mildest astringents. I scarcely ever use anything but a calamine lotion,  $\frac{3}{4}$  ss. to  $\frac{3}{4}$  vi. fluid, with gr. i. bichloride of mercury, and 3 ij. of oxide of zinc.

The truth is, that as soon as the general condition improves, the acne mends, and, locally, what is needed is the prevention of any undue inflammatory action. Some cases are very obstinate, especially where the avocations and status of the patient render proper care of him or herself, or the obtaining of



proper nourishment, an impossibility. When the disease becomes chronic and indolent, the vessels of the affected spots lose their tone and need stimulating. Whilst the inflammatory induration can only be got rid of by stimulants, I prefer a weak tarry or mercurial application to anything else—3 ss.—3 i. of the huile de cade to 3 i. of lard, or 5 or 6 grains of the nitro-oxide and ammonio-chloride of mercury to 3 i. of lard. Some cases do well with a mild alum and sulphate of zinc lotion. What I want to bring out prominently for notice, however, is the necessity of avoiding such remedies in the early stages of acne in the patients to whom I am referring, and until the general health has been improved, and the hyperæmia has lost some of its activity.

Another, and, indeed, the commonest kind of case, is that which occurs in those who are the subjects of dyspepsia, and who are debilitated, who suffer from constipation, and are, it may be, anæmic. Any number of these cases may be observed in hospital practice amongst domestic servants, seamstresses, dressmakers, clerks, porters, and, in private practice, amongst people following similar avocations, and in those of the middle and upper classes who live unhealthily. These dyspeptic acne patients, if I may so term them, often get little exercise, live and work in a vitiated atmosphere, in crowded, ill-ventilated workrooms; their diet is often scanty, and their meals are hurriedly taken; and then, at the time that the circulation in the face becomes more than usually active, glandular derangement occurs, excited, perhaps, by exposure to great variations of temperature, and aggravated by the dyspepsia and the debility. Such patients tell you they always flush and feel distended after meals, when the face burns and is redder than usual; and this excitation of the vessels of the face is kept up by the dyspepsia. The urine is loaded with lithates, and the bowels are sluggish. These are the easiest cases of acne to treat. They all get well. They need aperients, antacids (I prefer a gentian and soda, prussic acid, and ammonia mixture, a dose being taken an hour before each meal, with bismuth for a time, if there be pyrosis), together with moderate exercise in the open air; the avoidance of beer, sugar, pastry, seasoned dishes; and, when the tongue cleans, the exhibition of iron and quinine and arsenic combined. The arsenic, I believe, acts as a nerve tonic, and not as a specific against acne. Locally, I never use anything but the calamine lotion before mentioned, followed by a weak sulphate of zinc and alum lotion, three or four grains of each to the ounce. The use of these local remedies should be conjoined with that of hot

fomentation, night and morning, and the avoidance of all soaps.

Most practitioners commence at once with the internal use of arsenic and iron in these cases. I feel confident that the removal of the dyspepsia is the proper thing to be first effected, and I can speak from a rare success in the management of these cases of acne. In some of these cases, there is more or less disorder of the catamenial function—amenorrhœa may be present; but the uterine functions are restored to their natural state when the general health improves under the influence of tonics.

But these same cases of acne in dyspeptic subjects are seen, not only amongst the lower and the more indigent of the middle classes, but amongst the upper and well-to-do classes. The dyspeptic and the general lethargic condition which exists in these patients is the result of the inactive and luxurious lives which they lead, the late hours which they keep, and the rich diet of which they constantly partake at all kinds of evening hours, till the bodily functions become torpid, the general system enervated, and the stomach and excretory organs oppressed, dyspepsia and debility being two of the main results. These cases are to be treated as other dyspeptic cases, only the more care is needed in the prescription of diet. Plain and wholesome diet should alone be allowed, wine and condiments, pastry, and sugar be proscribed; whilst hygienic measures, cold bathing, horse exercise, change of air, and like measures, calculated to invigorate the body, provided the face is not exposed to external irritants too much, are to be commended. The form of acne is usually that described as *acne vulgaris*—it may be *A. indurata* if the disease has lasted a long time.

But I have two more classes of acne cases to consider. The next kind of case which I may deal with, is that which is observed in patients in good health, and in the condition which the older writers would have described as plethoric. These patients are not particularly young. There may be a certain amount of dyspepsia in their case, very often none; but there is oftentimes a loaded state of system. The bowels are inactive; the kidneys do not excrete freely and fully; the pulse is full; there may be some headache. The face is not only studded over with acne spots, but is more or less generally congested. These patients are oftentimes what may be not at all inappropriately, in their cases, styled gross feeders. They eat plentifully, and oftentimes take a full quantity of beer or other stimulant. Some exhibit apparently a gonty tendency. The acne spots are well marked, numerous, and large in size; they possess indurated bases, and are easily inflamed. The back and

face and the forehead are the parts attacked in these cases. Now, the main thing to be done in such circumstances is to "cut off the supplies" for a while, and to give aperients with a sufficiently free hand, together with mild tonics, and, in gouty subjects, colchicum in addition. After a while, tonics alone, with or without arsenic, may be given. The combination of aperients with tonics in these cases was the secret of Mr. Startin's success, I believe. It stands to reason, that, if the emunctory organs have not been doing proper work for some time in these acne subjects who "make blood fast," the blood-current will be unduly charged with effete products, which depress the powers, and so induce debility indirectly; and, moreover, set up, or at least intensify, local congestions—such as acne of the face. Such a prescription as the following may be written:—Sulphate of magnesia, 3 ss.; aromatic sulphuric acid, ℥xx.; sulphate of iron, gr. iij.; quinine, gr. i.; colchicum wine, ℥x.; syrup of ginger, 3 i.; and water, 3 j., twice or thrice a day, with an aperient pill if needed. It soon reduces the facial hyperæmia, the more so if the diet be unstimulating; in practice, stimulants should be interdicted, and the patient be directed to take a course of Vals water, which keeps the kidneys active, and prevents any undue acidity of stomach. By and by, after the face is less heated, and the acne spots less inflamed, the colchicum may be omitted, and some preparation of arsenic substituted for it; but a gentle aperient action is to be kept up all the while the patient is under treatment. Now, as in the two other kinds of cases before described, the local treatment must always be soothing at the outset. But, as the general state improves, more active remedies may be used in these plethoric subjects, and I think sulphur is especially useful in them. I use generally a weak sulphur ointment, gr. x. to 3 i. of adeps, to begin with, and prescribe, in addition, a simple calamine lotion as a protection to the face; but if the sulphur does not succeed in improving acne indurata, I then prefer touching the acne spots with acid nitrate of mercury, so as to lead to their resolution; or if this be objected to, or be inconvenient, I apply mercurial plaster at night.

In some cases, the acne spots are very large and inflamed, and, indeed, the whole gland, in its deepest part and its surrounding connective tissue, is actively involved in the inflammatory swelling. I think this condition is one most benefited by the free use of aperients with iron, and also, if the patient be strumous, of cod-liver oil. But a course of Kreuznach or other waters seems, in some cases, very efficacious, if the acne is chronic and holds to the patient with any special pertinacity.

The last kind of case to which I shall refer is that which occurs in middle-aged men and women, and takes the form of *acne rosacea*. Some writers have disputed much whether this is in reality an *acne* at all. It is not of much consequence whether we class *acne rosacea* with *acne* or chronic inflammations of the skin. The disease is a composite affair. It is a chronic inflammation of the face made up of *acne* spots, periglandular inflammation, erythema, and new growths of connective tissue formed independently of the glands. The first stage consists in congestion of the face, and more or less dilatation of certain capillaries. Particular points of the papillary layer become hyperæmic; and certain of the glands are similarly affected, so that *acne* spots are produced, an excessive amount of sebum is often secreted, and the skin feels greasy (*seborrhœa*). The general surface of the skin of the face is more or less congested. In the next stage, as the consequence of the continued inflammation, the connective tissue around and about the glands hypertrophies—that is to say, the *acne* spots become indurated and hard; and the independent non-glandular papules become more marked. The color of the redness is bright red; the vessels become varicose, and ramble freely over the surface of the diseased parts; suppuration is not very marked, but the integument generally is thickened as a consequence of the general congestion. Now, this disease is rarely seen in the young. It occurs in women of middle age who suffer from uterine troubles, and attacks the nose and the cheeks by preference. The disease is aggravated by trouble, by stimulating food, by exposure, by dyspepsia, and by alcoholic drinks.

It is difficult to manage. Some of the cases combine in them the special features of the “dyspeptic” and “plethoric” cases, but then there is no “physiological gland activity” element in the case. The truth is, that the face is generally congested, and the glands are involved as part of the face. The pustulating points indicate the seat of the affected glands, and the minute vessels running up to the indurated base are the best indication of the seat of the newly formed tissue—the hyperplasia. The skin generally is, as I have said, more or less hypervascular.

I suppose these cases are seen most commonly in women of nervous temperament who have suffered for some time from dysmenorrhœa or even menorrhagia, and who have experienced much mental excitement or anxiety; or in men who have indulged freely in alcoholics or lived badly. The women are often affected by atonic dyspepsia as well. In the management of these cases, what is needed is the rectification, in the first place, of the concomitant condition of ill health, leaving the *acne* to

take care of itself for the while, so far as internal remedies directed to cure it are concerned. The diet in all cases must be unstimulating; alcoholics are to be avoided; when the tongue becomes clean and all evidences of dyspepsia are disappearing, and the uterine functions are restored to their proper state, then the acne itself may be treated. In cases in which there is dysmenorrhœa, with anæmia, and in which the face gets worse before the periods, the combined use of bromide of potassium and perchloride of iron with simple aperients, and if the flushing of the face is marked after meals, a course of Vals water has succeeded in doing much good in my hands. Supposing that there is much induration about the individual spots, if the patient is in fair health and there be no dyspepsia, a mild mercurial course may be prescribed with much success. I give 1-20th or 1-24th of a grain of a bicyanide of mercury with quinine, twice a day for three weeks or so, to be followed by 5 or 8 drops of Donovan's solution twice a day for some little time; cod-liver oil being likewise exhibited at the same time if desirable. Supposing the skin of the face generally to be thickened, I think Donovan's solution the best remedy to begin and continue with. If the amount of blood in the face varies under slight influences, then I prefer saline aperients with iron and quinine. In those cases in which the patient seems to be suffering from what we know as "nervous debility," then I have recourse to arsenic without hesitation, and push its exhibition in connection with quinine and allied tonics or nux vomica. In the case of the man who drinks, and has semi-pickled his gastric mucous membrane, the difficulties are great. The best course to adopt is first to send him to drink the waters at Aix, Harrogate, or Kreuznach \* as a preparatory treatment, and then to exhibit arsenic and iron with aperients.

But there is one thing more to be said about these cases of acne rosacea. It is the necessity of ascertaining if there be any gouty tendency or syphilitic taint about the patient. If the patient be gouty, so much the more reason for a course of Kreuznach waters, and if syphilitic, for a mercurial course; although, as I have said before, a mercurial course may be beneficial in hastening the removal of the inflammatory indurations. In very chronic acne indurata, and still more so in syphilitic cases, the forehead and temple regions are specially involved.

Locally, the sooner the acne spots are destroyed by acids the

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\* The saline springs that abound at Saratoga and Ballston, New York, and the Spring Lake well, at Spring Lake, Ottawa County, Michigan, approximate sufficiently, in their constituents, for all therapeutic purposes the European springs recommended by Dr. Fox.—EDITOR.

better. But then my argument will be the same here as in regard to other phases of acne. So long as any concomitant condition which leads *per se* to an intensification of the hyperæmia of the face exists, so long will it be necessary to withhold stimulation and to use soothing remedies in order keep hyperæmia—I mean of course when that is active—in check; and I hold it to be doubly necessary to observe this rule in dealing with *acne rosacea*, since in that disease there is a large amount of hyperæmia, not merely of the glands and periglandular tissue, but the derma generally. In the early and active stage, then, of *acne rosacea*, I am content to use hot-water and poppy bathing, with inunction of oil of cold cream, followed by the application of warm lead and opiate lotion, the face being diligently protected with a powdery layer deposited from a calamine lotion. Then stimulate with hypochloride of sulphur ointment, or apply a zinc and alum lotion, and touch the several spots with acid nitrate of mercury as they spring up or are obstinate in disappearing. This plan will best rid patients of their trouble.

But I hasten to add, that though I have set forth in order the general treatment of acne, yet I do not forget, of course, that acne cases come to us for treatment at all stages and under varied circumstances, and it is the duty of the physician to adapt his treatment thereto.

I have said nothing as yet about the diagnosis of acne, and will content myself with one practical remark, that in middle-aged men and women, but the latter especially, there is a condition of face which is universally regarded as acne (*A. rosacea*), but which has nothing to do with acne. The patient comes to the physician stating that she has had the rash on her face for perhaps several years. It gets a little better at one time, but only to become worse again subsequently. It developed in the form of little red pimples scattered over the face, especially about the cheek and sides of the nose. If a careful inspection of the spots be made, they will appear like little fleshy lumps, varying in size from pins' heads to a quarter of a split pea; they are dull red, and they look fleshy—they are, in fact, little new growths, neoplasms—and have no central aperture indicative of the opening of the follicle,—in fact, are clearly formed not at the follicle, but in the papillary layer. On inquiring into the antecedents of the patient, a past history of syphilis may be made out: the patient has had sore throat, which ran a chronic course; she miscarried several times, or had still-born children; and has had a sore tongue. Perhaps there are evidences of past ulceration about the fauces—in fact, indistinct evidence of a syphilitic history may be occasionally obtained.

I only briefly refer to these cases, and will only add that they are cured by antisyphilitic remedies and tonics, whilst other means fail.

In conclusion, I may be permitted to say, that although I have not perhaps brought forward anything new, yet I hope to have put the facts connected with the development and the course of acne in a truer clinical light, and to have indicated with tolerable clearness what are the exact principles upon which the treatment of the disease should be conducted.

I have tried to show, *firstly*, that acne must be regarded as being modified in degree and aspect by a variety of accidental conditions, that in treating acne it is necessary to deal with these conditions, and to negative their influence before, or at the same time that, the acne itself is treated; *secondly*, that in the early stages of acne the only admissible or successful treatment is one that soothes the hyperæmic surface. Stimulants and revulsives must only be had recourse to in the chronic or indolent stages, and after the influences of agencies that aggravate or that keep up the hyperæmia have been checked.

## ON THE EARLY SYPHILITIC AFFECTIONS OF THE BONES.\*

By CHARLES MAURIAC, M.D.,

*Physician to the Hôpital du Midi, Paris.*

TRANSLATED FROM THE GAZETTE DES HÔPITAUX, BY DR. M. H. HENRY.

SOME pathologists of great merit, among whom I number my excellent preceptor M. Cullerier, affirm, as a rule, that the appearance of tertiary accidents is always preceded by a manifestation of morbid phenomena belonging to the category of secondary accidents. "When we see," says M. Cullerier, † "a disease whether of the bones,—exostosis,—necrosis, or caries,—or of the fibrous or of the cellular tissue,—periostosis, gums,—nodes,—all affections designated under the name of tertiary symptoms, we find always an intermediary symptom, between the actual disease and the primitive accident, characterized by a cutaneous eruption, a syphilide, or by the ulceration of the mucous lining of the mouth and more frequently of that of the

\* Continued from the last number of the Journal.

† Cullerier, *Memoire sur l'évolution de la syphilis*. Archiv. Gén. de Médecine, 1845.

throat,—diseases which then replace those of the skin, and are of the same nature.”

“Often,” adds M. Cullerier, “we see an appearance of interversion in the manifestation of symptoms; thus, for example, a syphilide after or at the same time with an exostosis. That is true, but it is not my way of viewing it, for before the exostosis there has certainly been either a disease of the skin or of the mucous surfaces, whose specific element, not having been combated, or not sufficiently so, has been carried to the deep organs, at the same time still showing itself in the parts which it had at first attacked, and in these exceptional cases it is the tertiary accident which predominates.”

In effect, I believe that things take place as M. Cullerier indicates. Still there are certain exceptions to this rule. We have already seen in this article, and will see again, facts which prove in the clearest manner, that early tertiary accidents may be the first manifestation of syphilis; may show themselves before the secondary accidents, and at an epoch extremely close upon the chancre.

The following observation is an example of this. I have related it with some detail, because it appears to me to present, in this point of view, and in some others, peculiarities of real interest. It may be objected, that the instance is exceptional,—I agree, but it is precisely because it is exceptional, that we should study it with the more attention.

OBS. VII.—BALANO-POSTITIS—OCCURRING IN A YOUNG MAN OF 19 YEARS, —USUALLY OF VERY GOOD HEALTH,—ONE MONTH AFTER HIS FIRST COITUS.—ON THE FORTY-FIFTH DAY OF THE CONTAGION, SEVERE PAINS IN THE TIBIA FOLLOWED, AT THE END OF THIRTY-SIX OR FORTY-EIGHT HOURS, BY THE SPONTANEOUS APPEARANCE OF AN OSSEOUS TUMOR.—LAMENESS CAUSED BY THIS TIBIAL PERIOSTITIS.—ALTERATION OF THE GENERAL HEALTH.—ON THE SIXTY-NINTH DAY OF THE CONTAGION, PROGRESSIVE DEPRESSION AND DISAPPEARANCE OF THE TIBIAL TUMOR.—FOUR MONTHS AND A HALF AFTER THE CONTAGION—MUCOUS PATCHES OF THE LIPS AND PREPUCE.—PAPULAR —FLAT—SCATTERED SYPHILIS.

M. Edouard L——, aged 19 years, foundryman,—August 7, 1869, came under my care, at the Hôpital du Midi.—He was of a somewhat lymphatic temperament, but usually enjoyed very good health. I could find in his previous history no indications of disease whatever. He never had any venereal disease, other than he exhibits at present, and which he contracted about the 8th or 10th of June last, from a registered woman, met at a ball of the “Almond Trees”—the first woman he ever had connection with.

At the end of a month, there came upon the prepuce and the gland a diffuse redness, soon followed by phimosis, with a hard œdema of the cellular tissue of the penis and an indolent engorgement of the inguinal ganglia. July 25th (about 45 days after the contagion, 15th day from the occurrence of the chancre), the patient felt pain in the right limb, and



ascertained the existence, on the anterior face of the tibia, about the middle half, of a hard swelling, sensible to the touch, on which the skin easily glided, and presented at this point no change of consistency or of color. He was all the more surprised at the appearance of this accident, that he had the certainty of having been subjected to no injury or casualty likely to produce it.

This tumor, arising spontaneously, increased little by little and became more and more painful, to the point of affecting the gait and causing lameness. The general health began to fail; the patient became weak and lost flesh. He decided to enter the hospital.

August 10th—Sixtieth day of the contagion, a month after the chancre, I observed in him the following condition: double ganglionic pleiade, hard and indolent, in the groins. Incomplete phimosis produced by the induration and contraction of the edge of the prepuce. When we uncover the gland, we find on the mucous face of the prepuce only two or three red patches stripped of the epithelium, and resting on the thick tissues; two of these red spots are situated on either side of the frænum; there is present no morbid secretion; the chancrous balano-postitis is almost cured.—General condition: weakness and emaciation. No cachectic taint.—The skin is healthy; there exist only some small papules—much scattered and of a doubtful nature, on the anterior face of the abdomen and the chest. Nothing on the mucous surfaces. Some cervical ganglia without crusts in the hair. No troubles of sensibility, other than the pains seated at the level of the tibial tumor. This pain preceded the tumefaction.

It is on the anterior-internal and anterior border of the tibia, at eleven centimetres from the superior extremity of this bone, that the tumor is seated. It measures four centimetres and a half across, and about four up and down; the elevation is about one centimetre above the neighboring parts, in which it is insensibly lost.—Of almost bony hardness, without œdema or surrounding inflammation, it appeared to form one body with the bone and to be formed of the same substance. The skin which covers it is healthy and mobile. From the first days of its appearance, the pains of which it is the seat have neither altered nor diminished; they are lancinating, paroxysmal, augmented by walking, radiating—not downwards towards the foot, but upwards as far as the middle part of the thigh; they cause lameness; the patient can only descend or mount the stairs with difficulty; he experiences in the corresponding limb, but above all in the knee, a stiffness that walking dissipates by degrees. This tumor has been stationary for some days. At the beginning it increased rapidly, without being accompanied by any inflammatory phenomena (sulphur baths, wine of quinine, cataplasm). August 12th.—The patient has experienced daily for three or four days an access of fever without chills, about six o'clock in the evening. These daily accesses of fever lasted about two hours and were accompanied by a very severe frontal headache. They disappeared spontaneously. The tibial tumor remains in the same condition. I prescribed *two* grammes of the iodide of potassium and *five* centigrammes of the protiodide. August 17th.—The treatment is well borne.—The size of the tumor is not lessened.—There is lameness.—Whilst lying down at night, he experiences very severe lancinating pains, which start from the tibia and mount along the anterior face of the thigh to the groin. Double inguinal adenopathy very voluminous.

Aug. 19th (69th day of the contagion, 39th of the chancre).—Appearance on the trunk of an erythematous roseola, very characteristic. No notable diminution of the tumor.

Aug. 20th to Sept. 3d, the day of leaving the hospital.—The tumor was pointed twice a day with the tincture of iodine, and the mixed treatment described above was continued, with the addition of a gramme more of the iodide of potassium. The tumor decreased little by little, and disappeared almost completely, except at the level of the crest of the tibia, where the pains persisted always under the form of radiations, mounting as high as the groin.

Eight days after his dismissal the patient sees a woman. There results from this congress ulcerations of the edge of the prepuce, resembling mucous patches, and not followed by inflammatory buboes. On the skin there supervened some papules, flat and broad, one of which was situated on the lower lip. There was very violent prurigo.

Oct. 4th (84th day of the chancre).—I noted the following condition: Multiple adenopathy of the groins and neck; cure of the ulcerations of the prepuce; persistence of the prurigo and of some papules of the skin, which have a tendency towards humidity and ulceration; the tibial exostosis has almost completely disappeared, still there exists a slight elevation at its level, and the crest of the tibia is notably thickened; stiffness in the corresponding limb; lameness, which disappears during the day; no nocturnal pains. After walking or prolonged rest there are spontaneously manifested pains which mount as high as the groin, along the crural nerve. Supra-orbital pain commences at six, and lasts till relieved by sleep. No other osseous lesion. Mucous patches of the inferior lip. General health good. I never saw the patient afterwards.

The débûts of this young patient in the sexual life were truly deplorable. The first woman that he sees gives him an infectious balano-postitis, which declares itself at the end of a month. Fifteen days only after this primitive accident, periostosis of the anterior face of the tibia supervenes, without any syphilitic manifestation of the skin or the mucous surfaces. A month after the appearance of the chancre he has accesses of irregular fever, of general malaise, lameness, and of cephalalgia; and these morbid phenomena, which may be regarded as prodromic, are followed at the end of six or seven days by an erythematous roseola, then by mucous patches, etc. Thus, in this instance, with a precision remarkable, *one of the most characteristic tertiary accidents showed itself fifteen days after the appearance of the infecting chancre, and twenty-two days before the roseola.*

We cannot accuse the treatment of having interverted the order of connection of the manifestations, and of being the cause of this fine \* disorder, since it was only inaugurated on the fifteenth day of the tumor of the tibia.

On the other side, we find neither in the antecedents of the patient, nor in his temperament, nor in his constitution, nor in

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\* M. Ricord thinks, wrongly, in my opinion, that the treatment exercises on the evolution of syphilitic accidents a perturbing action, which he formulates, with more wit than exactitude, by the following line :—

“A beautiful disorder oft of art is an effect.”

his habits, any circumstance, pathological or otherwise, which can furnish even a semblance of explanation of such an anomaly. When I say anomaly, it is in the point of view of the rarity of the phenomenon that I mean; for I know of no physiological and organic law of the economy which prevents a virus, the diffusion and penetration of which are general and simultaneous, from manifesting itself on one point rather than on another.

I have found in the books only one case analogous to that which we have just read, and equally authentic. It is recorded by Vidal de Cassis.\*

"I possess," says he, "the completed record of a periostitis of the clavicle, which is remarkable in many relations: in the rapidity with which it established itself after the appearance of the chancre, in the absence of accidents belonging to the integument, and in the strongly inflammatory character of the lesion, which obliged us to employ antiphlogistics very largely."

I shall resume this case and compare it with mine:—

Chancres, infecting, multiple, in form phagedenic, beginning Dec. 3d, 1854, healed by the end of a month, and treated about the middle of their duration by Dupuytren's pilules (1 centigramme of corrosive sublimate and 2 centigrammes of the gummy extract of opium; 1 to 3 taken daily).

Dec. 28th (25th day of the chancre).—Without previous syphilide, pains in the right clavicle, rapidly become of extreme violence. Swelling of the bone, from the sterno-clavicular articulation to the meeting of the internal two-thirds with the external third. The skin which covers this tumor, whose thickness is double that of the bone, presents no change of color. (Iodide of potassium, leeches, etc.)

At the end of thirteen days, notable diminution of the pains and of the volume of the tumor. After an exacerbation, which made necessary a new application of leeches and of mercurial inunctions over the sterno-clavicular articulation, the patient was completely cured by the end of February, 1855.

Thus, in Vidal's case, the periostitis of the right clavicle declared itself on the twenty-fifth day of the infecting chancre, and lasts nearly a month, and, after a very violent exacerbation, is definitively cured at the end of February, that is to say, two months after its commencement. When the patient leaves the hospital he has not yet syphilitic manifestations of the skin and of the mucous tissues, and yet three months have passed away since the appearance of the primitive accident. It is to be regretted that this patient had not been longer under observation, in order to ascertain to what rank of accidents belonged those which succeeded the clavicular periostitis; because it is

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\* Vidal de Cassis: *Traité de maladies vénériennes*, 2d Ed., pp. 479-480.

little probable that the action of the virus was limited in him to this manifestation.

Let us study in these two cases the particularities which the periostitis presented.\* In Vidal's case, although the clavicular affection made its appearance eight days later than the tibial tumor did in my case, its process was much more active and inflammatory. It acted really like a periostitis, which made an energetic antiphlogistic treatment necessary, and which, even after being once cured, again returned, showing an equal degree of acuteness. The bone did not seem to have been attacked; the lesion remained confined to the periosteum, and, notwithstanding the activity of the inflammation, the subcutaneous cellular tissue and the skin had not been invaded by the œdema or exudation. The duration of this periostitis was very short, since at the end of two months the complete cure had been obtained by external antiphlogistic treatment, and by the administration of large doses of iodide of potassium (*four grammes a day*).

In my patient, the process, although less acute, was very rapid at first, since in less than fifteen days the tumor had attained its entire development and its greatest dimension, which was nearly four centimetres in diameter. The skin and cellular tissue remained intact during the whole duration of the affection, about thirty-seven days. The local pain was very severe; but paroxysmal, lancinating pains pushed their radiations into the thigh and caused lameness. The tumor was of bony hardness. I also believe that the anterior face of the tibia, as well as the periosteum, was attacked, and what proves this is, that after the cure and the disappearance of the tumor, the crust of the bone presented a little relief and a little thickening. Although I did not have recourse to active general and local treatment, the fusion of this tumor was more rapid than I expected. As it had been indolent from the beginning, and had presented during its entire duration no inflammatory phenomena, I really was afraid that it would be slow to resolve. My fears proved groundless, and as for the cutaneous and mucous manifestations, they did not differ from what we observe in syphilis of average intensity. In the following case, the periostosis of the tibia is far from having been as precocious as in the preceding, since it did not show itself till the ninety-fifth day of the chancre. It was later in point of time than the invasion of the cutaneous accidents, but it preceded by some days a syphilitic sarcocele; that is to say, a syphilitic manifestation, which it is agreed to

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\* I designate by this compound those sorts of syphilitic affections which involve at the same time the periosteum and the bone.

consider, very wrongly in my opinion, as an *accident of transition* between the secondary and tertiary accidents.

CASE VII.—INDURATED, INFECTING CHANCRE IN THE BALANO-PREPUTIAL FURROW, APPEARING AFTER TEN DAYS OF INCUBATION, IN A YOUNG MAN OF 24 YEARS, USUALLY ENJOYING GOOD HEALTH.—FORTY DAYS AFTER THE CONTAGION, SCATTERED, PAPULARY ROSEOLA. FOLLOWED AT THE END OF A MONTH BY RUPIA ON THE LEGS.—THREE MONTHS AND A HALF AFTER THE CONTAGION, ALMOST SIMULTANEOUS APPEARANCE OF A PERIOSTOSIS OF THE ANTERIOR FACE OF THE RIGHT TIBIA AND OF A SYPHILITIC ENGORGEMENT OF THE TESTICLE AND OF THE EPIDIDYMIS OF THE LEFT SIDE.—TREATMENT BY THE PROTIOIDE OF MERCURY AND THE IODIDE OF POTASSIUM.—CURE OF THE SECONDARY AND TERTIARY ACCIDENTS, AT THE END OF TWO MONTHS.—M. L. L.—, 24 years, street-peddler, of usually good health, and lymphatic temperament, entered my wards at the Hôpital du Midi, May 22d, 1869. His previous history revealed no well-marked manifestation of scrofula, rheumatism, or herpes. At eleven\* years of age he had his first blennorrhagia, contracted from a girl of the same age as himself; he had the same disease a second time at the age of nineteen. Both had been very benign and of short duration. No chancres.

About February 20th he had sexual connection with a rag-picker living at Montmartre. Ten days after appeared in the balano-preputial furrow, to the left, an infecting chancre, followed by a ganglionic pleiade—hard and indolent—in the groin of the opposite side.

In the first days of April (40th day of the contagion, 30th day of the chancre), scattered, papulary roseola. Invasion of general accidents, characterized by weakness, emaciation and discoloration of the integuments.

The papulary roseola had not yet disappeared, when there supervened some pustules of rupia on the legs. June 8th, *that is, just three months and a half* after the contagion (95 days after the chancre), the patient experienced pains in the right tibia, and perceived a diffuse swelling on the anterior face of this bone.

The 16th of the same month, although he had no trace of a blennorrhagic discharge, the left testicle became the seat of a sensation, troublesome rather than painful, of weight and stiffness, and from this moment it increased very rapidly in volume.

This was the condition of the patient June 22d (4th month of the contagion): Complexion, chloro-anæmic; no souffle at the heart or in the vessels, general feebleness and emaciation, alopecia, crusts on the scalp—ganglia specifically indurated, of enormous volume behind the neck and at the angles of the lower jaw. Scattered papulary eruption in progress of cure, on the trunk. On the lower half of each limb exist some rupia crusts, at most the size of a five-cent piece. Nothing on the mucous surfaces.

At the bend of the elbow, on the right side, there is a very severe pain, without any alteration of the joint and surrounding parts.

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\* Examples of this sexual precocity are not rare at Paris. I have treated, in my consultation at the Hôpital du Midi, a child of ten or twelve years, who had contracted infecting chancres from a merchant of Chickweed, in the rural district of Becètre. I have under my care at this moment a lad of ten years, who has contracted, I know not how, a syphilitic chancre on the left thigh, and who has had some mucous patches on the prepuce, the anus, and the lips. This child has communicated syphilis to his sister, aged nine years.

The tumefaction which was developed on the internal anterior face of the right tibia presented a length of six centimetres, and surpassed the internal posterior border of the bone by two centimetres; it was raised about half a centimetre above the bony surface, on which its edges were insensibly lost. The skin covering it showed no change of color; but the subcutaneous cellular tissue was a little cedematous. It was hard to the touch, very sensible to pressure, pervaded by pains severe enough to prevent prolonged standing erect. Osseous pains existed also in the limb of the opposite side, although there was no periostic pain.

The testicular tumor was constituted by the epididymis and the testicle, united so intimately that it was impossible to distinguish the one from the other. Its surface was smooth; it had the shape of a pear and the size of a goose-egg. It terminated at the point of the cord, which was a little thicker than its normal state. The vaginal and other envelopes of the organ were intact. When one pressed this tumor, which was heavy and of great consistency, very little pain could be provoked in it. No spontaneous or radiating pain.

The chancrous induration, situated in the left half of the balano-preputial furrow, was still very voluminous. The patient took *ten* centigrammes of the protiodide for a month; I added to this treatment *two* grammes of the iodide of potassium. July 1st, the swelling of the testicle was somewhat diminished. The peri-exostosis of the tibia appeared also to be decreasing. Marked diminution of the osteocopic pains.

July 6th.—The swelling of the testicle, instead of being pear-shaped, was ovoid, like the organ in its normal condition; it had diminished by half a centimetre. Behind, the epididymis was commencing to detach itself. Complete indolence. Diminution of the tibial tumor equally very noticeable. The ulcerations of the limbs were also rapidly cicatrizing—no more pain, even at the level of the tumor. Very considerable amelioration. (*Two grammes* of the iodide of potassium.)

July 29th.—The testicle and epididymis had completely returned to their normal state, and the tumor of the tibia had disappeared; there remained only a little ridge, at this level, at the internal border of the bone. Cutaneous ulcers cicatrized. No more pains. The puffing out of the sub-maxillary ganglia still very considerable. Nothing on the mucous surfaces.

The patient left the hospital cured of all accidents secondary and tertiary.

In the preceding case, the incubation of the primitive accidents was ten days, that of the cutaneous manifestations thirty days, and that of the tibial periostosis ninety-five days.\* The appearance of this last accident, although very premature, was not exceptionally precocious; still it had taken place at an epoch when it was not common to observe it.

The duration of the tibial tumor was about forty days; its process was indolent rather than active. The resolution was easy, and there remained only a slight tumefaction of the inner

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\* By incubation of these primitive accidents, I mean the time which passed between the début of the chancre and the appearance of each category of manifestations.

border of the tibia, attesting that the bone itself had been somewhat involved.

As for the syphilis of this individual, regarded in the ensemble of its manifestations, it was evidently serious, since from the commencement of the consecutive accidents there was an eruption of rupia on the limbs, and that some days after the appearance of the tibial periostosis the left testicle became the seat of a syphilitic sarcocoele. It is correct to say that all these manifestations, accumulated into a very small space of time, were very easily cured.

This patient was treated for a month by the protiodide, when he was attacked with the tibial periostosis; an anti-mercurialist would not fail to say, "See the effects of mercury! such an affection would never have supervened on the ninety-fifth day of an infecting chancre, if you had not administered mercury!" And it is with reasonings of like force that a whole school have made the mercurial treatment responsible for tertiary accidents, and particularly for those that are seated on the periosteum and the bones!

The early affections of the osseous system are not always fleeting; they sometimes resist the treatment, and are never completely cured. At other times they come back with disheartening facility. The following is a case in point:

CASE IX.—IN THE NINTH MONTH OF THE CHANCRE, BEFORE THE APPEARANCE OF SECONDARY ACCIDENTS, COMMENCEMENT OF AN OSSEOUS AFFECTION OF THE SUPERIOR EXTREMITY OF THE ELBOW.—TREATMENT, VERY REGULAR; STILL, AT THE END OF THREE YEARS, EXOSTOSIS OF THE INTERNAL EXTREMITY OF THE LEFT CLAVICLE, AND OF ONE OF THE RIGHT RIBS.—NO COMPLETE CURE.—ALTERNATIONS OF BETTER AND WORSE.

M. G——, aged 40 years, large, vigorous, well built, of habitual good health; never had any disease; contracted in 1867, about March, a blennorrhagia, accompanied, towards the third or fourth week, with balano-preputial chancres.

Two months after the appearance of the chancres, very severe pain, without tumefaction and without modification of the skin, a little below the olecranon of the right side. This pain was extremely severe and exasperated by pressure, greater by night than by day, with neuralgia-like radiations in all the forearm, and a notable enfeeblement of the muscular force. This accident, altogether local, since there existed no pains in other points of the osseous system, had come on without external cause, and before the secondary manifestations. By degrees the periosto-osseous lesion, imperceptible at the commencement, was made known by a considerable tumefaction of the whole upper extremity of the cubitus; at the end of ten months it had attained its whole development.

The patient had afterwards sore throat, buccal mucous patches, also balano-preputial but little or no cutaneous affection.

At the end of three years, pain and tumefaction of the inner extremity

of the left clavicle. Later, periostosis on one of the right ribs, which lasted only two months.

No grave nervous phenomena. Nothing as regards the splanchnic organs.

Since the first of the syphilis the patient has pursued regular and uninterrupted treatment. He has taken more than 500 pills of the protiodide; more than one kilo., he said, of the iodide of potassium, which has always been very effectual in arresting the pains, but has not prevented their return.

Still, in spite of all these cares, March 27, 1872 (fifth year of the syphilis), there existed a diffuse swelling of the whole superior extremity of the cubitus, at the base of the olecranon, with sensibility on pressure and spontaneous pains, disappearing by the use of the iodide of potassium, and returning when he stopped it. No cutaneous reddenings nor packing of the tissues situated about the exostosis.

Left clavicular extremity doubled in volume and painful on pressure, although there, as in the cubital exostosis, the active process appeared to be arrested.

No other lesion.

The phenomena above indicated have never completely disappeared; many alternations of better and worse occurred. The dose of the iodide given each day never surpassed, he said, one gramme a day. When the patient came to be treated by me, I rapidly increased the dose, and I prescribed for him without inconvenience six or seven grammes a day. At the end of two weeks there existed a marked amelioration; the pains had disappeared, and the cubital and clavicular tumors had diminished in volume. I have lost sight of the patient.

We see that the periosto-osseous malady followed from the start a chronic march. It was slow to develop itself, and to disappear in the olecranon; then it was reproduced there. At the end of three years the internal extremity of the clavicle became diseased, as well as one of the ribs. At last, in the fifth year of the syphilis, the osseous lesions still persisted, notwithstanding that a mixed treatment was followed for a long time with perseverance.

Although the iodide of potassium is endowed with an incontestable curable virtue against certain syphilitic manifestations, it must be acknowledged that, like mercury, it finds refractory cases. Moreover, some cases that I have been permitted to observe have put me on guard against its preventive efficacy, which I have found too often at fault. Indeed, I have seen appearing, whilst I was administering it, the very lesions the appearance of which it had for an end to prevent.

In the two following observations, the lesion which I consider as tertiary, did not appear to occupy exclusively the periosteum and the subjacent bone. It was a tumor situated on the internal posterior part of the tibia, between the bone and the muscles of the posterior part of the limb, to which it seemed to adhere.



CASE X.—INFECTING CHANCER.—AT THE END OF FOUR WEEKS, TUMOR OF SYPHILITIC CHARACTER, BETWEEN THE TIBIA AND THE POSTERIOR MUSCLES OF THE RIGHT LIMB.—AT THE END OF FIVE WEEKS, THE APPEARANCE OF AN EXANTHEMATOUS ROSEOLA, ETC.—CURE OF THE TUMOR IN SIX WEEKS.

M. Ch.—— (Jean), age 28 years, charcutier, entered, Jan. 29th, 1870, my wards of the Hôpital du Midi. Is large, blond, strongly built, habitually in good health, and presents in his previous history of disease, general or local, hereditary or contracted—

First, blennorrhagia in 1863; second, in 1867. The appearance of an infecting chancre in the week of Christmas, 1869.

Four weeks after, that is to say about the middle of January, 1870, a severe deep-seated pain occurred in his right limb, accompanied by a diffuse swelling. More severe at night than during the day, this pain was irregularly paroxysmal, with irradiations in every segment of the lower limb; it hindered the walk and prevented the patient sometimes from working.

About ten days after the appearance of the pain, eruption of mixed confluent roseola, composed of erythematous spots and some flat papules.

About Jan. 30th, pains in the right elbow, preventing complete extension, and propagating itself along the external edge of the biceps.

Condition of the patient February 3d (sixth week of the chancre): The general health is affected; enfeeblement, dizziness, dazzling, small indurated patch on the dorsal face of the prepuce, resulting from the cicatrization of the chancre; cervico-inguinal adenopathy, erythematopapulary roseola.

There exists towards the superior third of the right tibia, about four centimetres below its tuberosity, and on its internal border, a circumscribed tumefaction, painful, independent of the skin, which glides easily over it, and whose subcutaneous cellular tissue is nevertheless œdematous. This tumefaction buries itself in the internal part of the muscles of the calf. The pressure exercised upon these muscular masses is very painful. Walking is difficult; no traumatic cause.

Incomplete extension of the right forearm on the arm. Tension of the tendon of the biceps, which appears healthy, as well as the other muscles. (Treatment: a gramme of the iodide of potassium; pills of the iodide.)

February 21.—Almost complete effacement of the tumor of the leg. Pain, upon pressure, in the muscles of the calf. Persistence of the roseola.

March 1.—No more pain in the muscles of the leg. Still a little stiffness at the point of the tumor, on the inner edge of the tibia. Paleness of the eruption, etc.

The patient went out March 4th, incompletely cured.

It is probable that this tumor had its point of departure in the periosteum, and that it had gained the adjacent cellular tissue, which separates the different couches of muscles of the posterior region of the leg. It is probable, also, that it was constituted by a conjunctive hyperplasia, as the rest are for the most part of syphilitic lesions. However that may be, it was manifested, or at least was announced, by non-equivocal symptoms four weeks after the primary accident, and ten days

before the papulary roseola. It was a little acute in its march and in its symptoms from the beginning; then it entered frankly on the way of resolution, after about a month of duration. As for its syphilitic nature, I do not think it can be subject to the least doubt.

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### ON THE PATHOLOGY OF LEPROSY.\*

By H. V. CARTER, M.D.

DR. SYMES THOMPSON communicated a paper by Dr. H. V. Carter, "On the Pathology of Leprosy; with a Note on the Segregation of Lepers in India." In this paper—the result of observations made in Western India during the years 1860 to 1871—leprosy is considered as a whole, and its diagnostic characters are stated to consist in (*a*) skin changes, either produced by the well-known "tubercles," or evidenced by alterations of rather atrophic character, which result in a form of "eruption" corresponding in its typical manifestation to the "Leuke" of classical Greek writers, now widely known in Western Asia as "Baras," and having, it is thought, affinities with the "lepra" of Willan, etc., only that scales are wanting, owing to tropical influences on the skin. The name *Lepra leprosa* is suggested as suitable to this eruption. Superadded to these visible changes is (*b*) a prior and progressive impairment of the functions of the cutaneous nerves and branches, the structural alterations in which are regarded by the author as the characteristic lesion of leprosy. Hence result the marks presented by lepers, and one or other of which is the only infallible sign of their disease: the author knows of no characteristic prodromata. Subsequent changes are slow in progress, and are indicative of malnutrition of the frame, both local and general, and hence susceptibility to corresponding hurtful influences. There are no symptoms of visceral lesions peculiar to leprosy; and while it is true that lepers die bearing the marks of their disease upon them, yet there is neither order nor uniformity in the time or mode of their decease. Next are considered the morbid anatomy and histology of leprosy, and it is stated that the structural changes observed are due to exudation or deposit in the skin and appertaining nerve-trunks of a firm, translucent, colorless or pale-reddish material, which may be distinguished by the

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\* Abstract of a paper read before the Royal Medical and Chirurgical Society of London, March 25, 1873.

borrowed terms hyalin-fibroid and hyalin-granular. As regards the skin, conjunctiva, and adjacent mucous membrane of the mouth and larynx, this deposit (here hyalin-granular) first appears within or immediately beneath the membrane proper: accessory organs, and even the blood-vessels, are secondarily involved; but it has been noticed that the tactile corpuscles disappear before other less sentient elements. As regards the nerves, this deposit (here hyalin-fibroid) first appears between the individual nerve-tubules, and within their sheath—i.e., the neurilemma of the funiculus; the outer envelope of connective tissue is hardly changed. By accumulation of the new material the tubules are separated, compressed, emptied, and eventually destroyed. The microscopic characters of this leprous deposit are then referred to. The material looks exudative, but may be derived from proliferation of connective-tissue corpuscles; it undergoes slight development, and is susceptible of degeneration. In sixteen autopsies of lepers consecutively dying in hospital, no trace of deposit was noticed in the muscles, bones, or any of the viscera. The brain and spinal cord were wholly free from such deposit, etc. Then are mentioned the general characters and distribution of leprosy in Western India. Reference is made to the author's late report on this subject, published in the *Transactions of the Medical and Physical Society of Bombay* for 1871; the previous volume for the year 1862 containing a description of the symptoms and morbid anatomy of leprosy. Particular attention is invited to the three circumstances, that the disease is capable of being hereditarily transmitted, that society in India is minutely subdivided by caste regulations into sections within which alone is marriage permitted, and that certain races (the princival) are apparently more largely affected by the disease than any others: hence certain obvious inferences. The author adds that neither climate nor endemic influence has been shown to favor or check the prevalence of the disease; faults of diet, hygiene, or habit equally fail to account for its varied distribution. The population generally is affected to the extent of one in about 1,000 inhabitants, but the proportion differs in the several races, and hence in localities occupied by those races more predisposed than others. The seat, nature, and causes of the leprous disease are then inquired into. It is affirmed that, so far as manifested, its seat is the cutaneous system, evidence to that effect being negative and positive. The latter includes certain interesting features revealed on dissection, which are pointed out; thus, the cutaneous nerves are affected only, or chiefly and primarily, in that part of their course between the skin and the deep

fascia of the limbs or trunk; and when the deeper-seated nerve-trunks of compound function are diseased, it is only their sensory elements which appear to be affected, and often those in continuity with skin-nerves; details are given. It is added that motor paralysis is seldom marked in lepers who can crawl on, or bend, the stumps, which are sometimes all that remain of hands and feet. The author considers that there are trophic nerves in connection with those termed sensory; and that nutrition, as a process, may be directly influenced by the nervous system. It is submitted that all the essential phenomena of the leprous disease may be traced directly or remotely to the characteristic nerve-lesion. As to the nature of leprosy, it is briefly stated that the existence of a dyscrasia or primary blood-change seems hypothetical and even needless; it may be said that the proximate cause of leprosy resides in a faulty condition of certain tissues of the integument—a defect, perhaps, of development, certainly a quality transmissible to offspring.

*Etiology of Leprosy.*—Having regard to the fact that the inherited form of the disease is identical with that not known to be derived, the author surmises that the only true cause of leprosy may be hereditary or transmitted taint; or, in other words, a latent form of the affection itself. Respecting contagion, or inoculation, as causative influences, the author remarks on the absence of crucial facts. The grand test is necessarily wanting; and hence variety of opinion dependent on circumstances. As to endemic influences, it has been found that no one feature of air, soil, or water can be connected with the presence or frequency of leprosy. Europeans living long in India are virtually never affected with the disease. That malaria and leprosy are correlated does not appear. An appendix has been added to this section of the paper referring more especially to the views of Professor Virchow. Regarding the added note on the segregation of lepers in India, the author brings the subject forward rather to elicit opinion than to make assertion. It does, however, appear to him that the decline and extinction of leprosy in Europe during the middle ages is well and fully explained by the close, even if harsh, restrictions under which lepers were put by law and custom; and, holding this view, he would venture to recommend segregation as a fit measure for adoption in India, where the disease has been long established, shows no sign of diminution, and is constantly productive of much harm and suffering. Nor does there seem other hopeful way of eradicating leprosy; for, in the author's opinion, the view that improvement in hygiene and general progress will, or has, led to the extinction of this

disease, is not sustained on a wide survey of available data.—*Medical Times and Gazette*, May, 1873.

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### CASE OF HYDROA.

By C. HANDFIELD JONES, M.B. CANTAB., F.R.S.

T. G., female, aged 22, admitted November 11, 1872. Has been ailing two years. Frequently has vomited blood, sometimes two or three times a week. Once there was an interval of two months. Thinks she may have brought up a teacupful at once; the blood was sometimes clotted. If she eats the least bit of meat she is sick directly; if she takes anything but fluid she feels pain in the epigastrium. Had jaundice twice four or five years ago. Bowels regular. Tongue moist. No catamenia last two months; the flow was scanty previously. Has pain in left side, not worse after food. On left side of chest there is a pretty copious eruption of scattered red papules; a few have become scabbed and quasi-pustular. This eruption has come and gone, off and on, for last two years. Lower dorsal spines are tender. She is able to walk now, but has been unable after a long confinement to bed. Spoon diet, milk; extract. cannabis indica, gr. ss., tannini gr. ij. in pil. ter die.

November 13.—No sickness at all since admission. Pulse 87; temperature 96.8°. Ung. hydr. ammon. chlor. dil. ad eruptionem.

28th.—Has tried fish, but it caused sickness, and she has had to return to pudding and liquids. Has had much left-side pain, but is pretty cheerful; gets about. The eruption on left side has increased; there are many red papules tending to become pustular, and the dark-red quasi-pustules before present have become larger. They show a blackish scabbed central depression, a considerable thickening of the cutis, and a margin which seems to be formed by a ring of small vesicles.

Ordered on 30th.—Hyd. cum cretâ, pulv. Doveri, āā gr. ijss. in pil. ter die.

December 5.—Eruption attended with much burning. There are four large patches from size of a threepenny to size of a sixpenny piece, circular, with considerably indurated bases, and marginal rings of whitish vesicles on a red area more or less marked and extensive. The other spots are much smaller, but show a like tendency to spread and become depressed and scabbed in centre.

7th.—In left axilla there are six or eight papular elevations looking much as if they would form vesicles; the rest of the eruption is in much the same state. Much pain in the eruption at night. Liq. potassæ arsenitis ℥iij., aq. 3 ij., ter die. Poultice.

9th.—The eruption in the axilla has increased; several of the vesicles have become confluent, and the skin in the patch they form is notably thickened.

11th.—Eruption increasing in axilla; one elevation has now got a central dark scab, and a complete white ring around, formed by epidermis raised by effusion of sero-purulent fluid. Another spot has also a similar whitly spreading raised margin with a central depression. Other spots are commencing as red dots or papules. Several of the old spots are drying up, and the scab can be detached, leaving a pretty healthy surface below covered with a very thin epidermis. Eyelids are rather sore (? from arsenic). Poultice is comfortable.

16th.—Eruption is very much better; on the side most of the spots have lost their scabs, and present a depressed whitly centre, and a slightly raised red margin; those in the axilla also are drying up. Pt. cum mist. 3 j. ter die.

23d.—Doing well; no sickness; the eruption has ceased, and almost all the scabs have come off. She remained in the hospital until January 15, having no recurrence of the eruption, and no sickness as long as she kept to pudding, eggs, and the like. She was very active and helpful in the wards.

*Remarks.*—The stomach disorder in this case is suggestive of ulcer, yet I hardly think that one of the ordinary lesions of this kind existed. The hæmorrhage was unlike that of ulcer, in occurring too frequently and in too small quantities, and in being, as I suspect, rather blood-stained mucous fluid than true blood. Probably there occurred on the gastric mucous surface some process analogous to that which we witnessed on the cutaneous surface; and this may have given rise to the occasional hæmorrhage, of which, however, there was very little while she was in the hospital. The stomach symptoms appeared to be rather referable to neurotic disorder than to ordinary inflammation. Some inflammation no doubt there was, but determined by nerve disorder. The eruption was very peculiar. I had never seen the like before, and had no name to give it till Dr. Cheadle pronounced it hydroa. It passed through the following phases: (1) Red papular spots; (2) the same, with vesiculo-pustules developed at their apices; (3) the elevation and induration of the spot increasing, the central part became depressed and covered with a more or less dark scab, while the vesicle-forming process spread excentrically, producing a distinct whitish ring,

enclosing the scabbed area, and itself surrounded by a zone of redness; (4) the vesicle-forming process ceased, the scab became detached, and the affected spot was left with only a whitish centre and a slightly raised red margin. These characters of the eruption closely correspond with those given in M. Bazin's case, quoted in the excellent report given in the *British Medical Journal*, 1870, vol. i., p. 491. The reporter remarks that hydroa is a vesicating form of erythema papulatum *seu* multiforme, the latter term including a variety of appearances which have moved dermatologists to bestow on them the names of E. circinatum, E. iris, E. tuberculatum, E. gyratum, E. annulose, E. papulatum. In one particular my case conforms not to the rule laid down by Hebra with regard to specific erythema—viz., that it shall occur symmetrically, and shall never exempt the dorsal surface of the hands or feet. It was one-sided, and did not affect the hands or feet. Nevertheless, being guided by Bazin, I must reckon it a genuine instance of hydroa, which it resembles further in its recurring tendency and in its spontaneous disappearance. Certainly it was not eczema, or pemphigus, or lichen, or psoriasis. Ecthyma it somewhat resembled in the inflammatory tumefaction of the spots, but differed from it in the scantiness and superficiality of the exudation and in its peculiar annular arrangement. Herpes seems to me the form of skin eruption to which it has most affinity, and I should propose to apply to it the term herpes centrifugus, which is much more descriptive of the phenomena than hydroa, as the latter leads one necessarily to think of a profuse watery discharge. But whatever name we apply to it, the main point for us to try to seize is its true pathological significance. What was its cause—of what kind of disorder in the system was it the result and evidence? Not, I believe, of syphilis, though I inclined to regard it so at one time. It was not in the least benefited by mercurial treatment, and it was not associated with any other syphilitic symptom. In two of the cases given in the report above quoted there was some question of the syphilitic character of the eruption. Neither can I look upon it as having any connection with scrofula, such as lupus is usually thought to hold. I should ascribe it to the existence of what our French *confrères* call a "*diathèse herpétique*," by which I understand a tendency to various skin disorders and to various neuroses, the former having their *raison d'être* in vaso-motor nerve paralysis. Asthma and bronchial irritation are sometimes associated with eczema, as in a case I saw recently. In the one we have been discussing the internal disorder had its seat in the gastric mucous membrane, and not in the bronchial.—*Medical Times and Gazette*, September 6, 1873.

## Epitome of Current Literature.

**Syphilitic Cachexia. Iritis with a Gummy Tumor of the Iris, and Choroidal Hernia of the left eye. Recovery.**—M. Al. Barety, interne at the Hôpital St. Louis, reports that L. C., æt. 31, was admitted into the service of Doctor Guibout on the 17th November, 1871. He was very much emaciated, and the cachectic appearance striking; various portions of his body, especially the left leg, were covered with an ulcero-crustaceous eruption, having all the characteristics of syphilitic rupia. It had existed about two months. There were two painful protuberances, one on the left ulna near the olecranon, the other in the middle of the crest of the tibia. A month prior to his admission he had a sore throat. Although there was no doubt as to the nature of the diathesis, it was impossible to fix the date of its inception. The left eye had become seriously involved; about *one month* previously the sight was blurred for two days, and shortly disappeared entirely. About eight days after the inception of the ocular affection, the most intense circum-orbital pains manifested themselves, especially in the forehead and temple, and there were but slight pains of the ball of the eye. These pains last about five days. Since then until her admission to the hospital they have manifested themselves but rarely, have been very slight, and of but short duration. On the date of her admission the *superior eyelid* was half closed, but could be easily raised. The *cornea*, less transparent than in the normal state, which was probably due, partially at least, to a slight trouble in the aqueous humor. There was *around the cornea* a vascular zone formed of fine, close and immovable fibres. The *iris* was of a fawn yellow, whilst that of the right eye was normal and of a clear blue. On the yellow iris are streaks of red. The *aperture of the pupil* was almost entirely masked by a peculiar product of a reddish-yellow color, a species of rounded tumor, with a defined periphery about the size of a pea, and arising by a tolerably large and visible pedicle to inferior external portion of the anterior surface of the iris. In the lower portion of the *anterior chamber*, especially with the aid of lateral light, the existence of a slight sanguineous effusion, a hypothema was ascertained. By raising the lid, and causing the patient to look downwards, a small tumor was found on *the upper portion of the globe of the eye*,



about 3 or 4 millimetres from the free border of the iris, shaped like a crescent, with an inferior concavity about 7 or 8 millimetres in length, 2 millimetres in thickness, and projecting about  $1\frac{1}{2}$  millimetres. It is of a bluish color, of a deeper tinge at two points, which are more prominent than the remaining portion of the tumor. The left eye was neither harder nor more voluminous than the right one. She could not see out of it, and did not complain of any orbital or circumorbital pain. Artificial light when close to the eye was but slightly noticed; but slight photophobia; there were no epiphora, and the fundus of the eye could not be seen. The following diagnosis was made: *Iritis with gummy tumor of the iris, and probably a gummy tumor of the ciliary ligament, accompanied with a choroidal hernia.* The following treatment was prescribed:  $\frac{1}{100}$  of a grain of protoiodide of mercury daily; 15.434 grains of iodide of potassium daily; syrup of the iodide of iron, a teaspoonful daily; wine of bark claret; a collyrium of neutral sulphate of atropine and distilled water  $\frac{1}{100}$ , three drops twice a day; a slightly compressive bandage on the left eye; a small blister on the left eye; styrax dressing for the ulcers; and broths.

On the 23d of November, M. Galezowski saw the patient and confirmed the diagnosis. The choroidal hernia had increased to such a degree that it appeared as if it might rupture at any moment. At the doctor's suggestion an inunction of mercurial ointment, 31 grains, was made daily until salivation should be induced; a mixture containing  $61\frac{1}{2}$  grains of chlorate of potassa was also administered daily. From that time the eye progressively and somewhat rapidly improved; whilst on the contrary the improvement was long and tedious. On the 29th of November the *choroidal hernia* was entirely reduced; at its points of exit, between the thinned and separated fibres of the sclerotic, an arc of a circle of a dark color, with its concavity turned towards the cornea, was only seen; this spot was on a level with the remainder of the sclerotic, and a few loose blood-vessels passed over it. Later it contracted and became of a darker color. On the 4th of December, the *tumor of the iris* had decreased with such rapidity that the aperture of the pupil was entirely free from it. This tumor, which then had the size of a lentil, occupied the inferior external portion of the anterior surface of the iris. Until then the atrophy was progressive; it had lost its reddish-yellow color and become of a clearer yellow. On the 12th of December it was of the size of a millet-seed, and on the 17th had entirely disappeared, leaving an irregular yellowish cicatrix.

Other changes were taking place at the same time in the cornea, anterior chamber, iris, crystalline lens, and in the function of the eye. On the 27th of November the *cornea* had lost its external smoothness, polish, and had become rugged; but on the whole it was more transparent. On the 30th of November the peri-corneal vascular circle was smaller, and the transparency of the cornea more perfect. Finally, on the 4th of December, it had entirely resumed its normal appearance. The improvement in the *aqueous humor* was coincident with the above. The *iris* had become of yellowish-green on the 30th of November, and on the 20th of December had assumed a dark blue color, which contrasted markedly with the light blue of the other iris.

From the 4th of December the changes in the *field of the iris* which had become disengaged, could be carefully noted. At first the iris was immovable and its free border dentated. The diameter of the aperture was of about four millimetres. By means of lateral illumination, a grayish white cloud on which were some red streaks could be distinguished. The *posterior chamber* appeared to be obliterated, and the iris seemed to be directly continuous with the above-mentioned cloud. The patient was scarcely aware of the presence of a light. As the tumor subsided, it was readily observed that this opacity was more marked near the centre and towards the inferior-external portion of the iris, the site of the tumor. The free border of the iris was here adherent to the lens, and there was an opacity of the anterior capsule of the lens. Towards the middle of December, this opacity had diminished at the periphery of the field of the pupil. Towards the end of December it had almost entirely disappeared, and the iris appeared to be adherent to but a very limited extent. On the 15th of December she first saw two persons. On the 20th she could count fingers. The fundus of the eye then examined with the microscope appeared to be healthy. The *periosteal tumors* shortly disappeared; and the ulcerations had completely cicatrized in the latter part of January, 1872. There was such gastric derangement during the progress of the case, that the anti-syphilitic treatment was discontinued on the 22d of December, and resumed on the 27th of February, 1872. On the 22d of April her health was quite restored. The sclerotic at the site of the *choroidal hernia* presented a linear cicatrix of a dark brown color. The *iris* of a darker blue than the other; at the site of the gummy tumor there remained a small irregular *cicatrix*, forming whitish, greenish, and black points and lineaments. The *free border of the iris* was almost en-

tirely adherent to the lens, the posterior synechia almost complete. The anterior portion of the capsule of the lens was grayish opaque, especially in its centre and towards the cicatrix of the iris. There was photopsia; the sight at a distance was obscure, and at two or three paces she could distinguish persons. This case is of special interest owing to the rarity of the choroidal tumor as a syphilitic lesion, also on account of the efficacy of the anti-syphilitic treatment, which was carried as far as ptyalism, and of the undoubted utility of small blisters on the forehead and temple; thus arresting a disease which threatened the utter destruction of an eye and rendering it comparatively useful.—*Annales de Dermatologie et de Syphiligraphie*, No. I. 1873.

**Effect of Carbolic Acid on the Urine.**—DR. W. A. PATCHETT, of Manchester, thus resumes his observations:—Carbolic acid lotion (of the strength 1 to 40) applied externally to a raw surface, has produced, in from 4 to 48 hours, a blackish or dark olive-green discoloration of the urine, which looks like an infusion of mint, or the color produced by the addition of a little iron to a vegetable infusion, as of tea or digitalis.

If the patient is otherwise healthy, the raw surface may be very large and the application constant, while the discoloration may be very slight or not at all, or intermittent; appearing and reappearing apparently without cause. A very small ulcer, in two chronic cases of Bright's disease, in two days showed deep discoloration. A large, healthy, granulating surface, in a case of burn, showed no discoloration of urine whatever, although kept covered with the lotion for weeks. In two cases the acid was given internally till toxic symptoms were produced—discoloration appeared only in one. In three cases of poisoning by taking carbolic acid instead of cough mixture, the urine found in the bladder after death was of a blackish-green, the blood of a magenta color.

After an amputation of a thigh, and covering the stump with carbolic acid dressings, the discoloration appeared on the second day, continued three days, then disappeared, and reappeared on alternate days for fourteen days, then disappeared altogether, although the carbolic acid was kept applied uninterruptedly. In several cases of severe erysipelas of the head and face the application of carbolized oil has produced dark-colored urine.

The cause of the peculiar coloration has been attributed to the action of the acid on the coloring matter of the urine; but the addition of the acid to the urine produces no alteration except in coagulating the albumen, if any be present.—*The Lancet*, August 23, 1873.

**Tuberculosis of the Skin.**—DR. BIZZOZERO, of Turin, records a case of the above in a child of fifteen, with a marked scrofulous habit. At the post-mortem the following lesions were found:—Tuberculosis of the lungs, with peribronchitis; intestinal tuberculosis, with large ulcerated patches, and a great many ulcers on the skin, especially at the elbows, the right half of the face, and the left shoulder. These ulcers did not extend between two centimetres in diameter. On examination with the microscope, the edges and fundus of the sores were found infiltrated with migratory globules, and there was granular destruction of the more superficial layers. Moreover, the existence of isolated tubercles was observed in the fundus and on the edges of the sores, as also in the portions of the skin around them. They consisted in giant cells with parietal nuclei. In the subcutaneous cellular tissue beneath the ulcers were found small gatherings of tubercles, which were quite perceptible to the touch through the tegument. Dr. Bizzozero thinks it very likely that scrofulous ulcers of the skin often have a tubercular origin.—*Foreign Gleanings*—*The Lancet*, June 21, 1873.

**Contagious Character of Measles.**—DR. LANCERAUX has concluded, from the observation of a great number of cases, that measles is contagious during its stage of invasion, and that its power of transmission is then most intense. The contagious agent must have its source in the mucous membrane of the eyelids, the nostril or the bronchi, since they are the only parts affected during that period. The period of incubation varies from nine to twelve days. It is therefore necessary to isolate patients from the moment the existence of the measles is suspected.—*L'Union Médical*.

**Four Cases of Molluscum Contagiosum in one Family.**—Dr. Dyce Duckworth recounts these cases, which although a contagious disease, he failed to inoculate even when the pul-taceous contents of the tumors were well rubbed into the sebaceous glands. Dr. Paterson, of Leith, has successfully inoculated this disease.—*Trans. Clin. Soc.*, Lond.

**Lichen Ruber of Hebra.**—This disease consists, pathologically, in hyperæmia of the deep part of the hair-follicles and hypertrophy of the cellular portion of the connective tissue of the root-sheath and the follicular wall, the result of the hyperæmia. Dr. Tilbury Fox employed alkalies and tonics for the dyspeptic symptoms, and oxide of zinc lotion, alkaline and bran baths for the hyperæmia, also cod-liver oil and iron, with recovery as a result.—*Trans. Clin. Soc.*, Lond.

**Development of Cancer of the Skin.**—According to Carnalt, who has examined three carcinomatous tumors of the skin, the epithelium of hair-follicles is the point of departure of the cancerous growth, which throws some light on the cause of cancer of the skin. Führer states that frequent and rough shaving is apt to produce cancer of the skin of the face. Out of fifty or sixty cases of cancer of the lip and cheek occurring recently in the Breslau Pathological Institute, only two were in women, and not one case among men with unshaved beards. Carnalt supports the view of Waldeyer and others, regarding the histological origin of cancer, that every cancerous growth originates in the epithelial elements of the part, which opposes Virchow's views that the cancer-cells are the equivalents of connective-tissue corpuscles.—*Virchow's Archiv.*

**Plastic Operation on the Urethra of a Boy, for the cure of Perineal Fistula.**—The following case, recently under the care of Mr. Durham, of Guy's Hospital, London, presents some interesting features. The patient, a little boy, had, one year and a half ago, fallen upon an iron spike, which penetrated the fore-part of the perineum and produced a jagged wound of the scrotum. Much blood was lost at the time, and for two days blood flowed from the penis. Soon, however, the wound healed, with the exception of a small hole in the middle line immediately behind the scrotum, through which the urine has ever since flowed, none having been passed by the penis. A catheter could be passed along the penile urethra to the position of the fistula, but not beyond; so that Mr. Durham had formed the opinion that a severance of the urethra had taken place at the time of the accident, and a *cul de sac* had resulted at the distal end of the anterior portion of the lacerated urethra. Having passed a small catheter along the penis as far as it would go, Mr. Durham carefully dissected out the urethra, and found the point of the instrument projecting into a little *cul de sac*. In this he made a small opening, and after dissecting out the anterior extremity of the posterior portion of the urethra, he passed the catheter on through this into the bladder, and stitched together the margins of the two portions of the urethra. The catheter was left in the bladder. This case was a beautiful example of complete rupture of the urethra, and of the consequent establishment of a permanent fistula in perineo. Mr. Durham hoped, by bringing the margins of the tube together, that union might result, and a continuous epithelial lining be produced. This, however, was a difficult and unusual thing to effect after there had been a thorough destruction of

the continuity of the mucous membrane.—*Medical Times and Gazette*, November, 1872.

**Removal of Nitrate of Silver Stains.**—Dr. L. P. Yandell reports two cases of cyanosis from nitrate of silver removed by iodide of potassium. Both patients had formerly been unsuccessfully treated by nitrate of silver for epilepsy, and their skins were deeply stained from its use. Contracting syphilis, they were treated with iodide of potassium, in doses of from ten to sixty grains thrice daily, conjointly with the mercurial vapor-bath. In one case only a faint discoloration remains, and in the other it is wholly removed. Dr. Yandell thinks the diaphoresis from the bath may have assisted the action of the iodide, and so suggests in the treatment of cyanosis from nitrate of silver that the vapor-bath should be used in connection with the iodide of potassium.—*American Practitioner*, June, 1872.

**Pain and Disturbances of Cutaneous Sensibility.**—Dr. H. Nothnagel observes that with whatever facility neuralgia can be diagnosed in typical cases, as in tic-douloureux or malum cotunnii (sciatica), in others it is difficult to say whether we have before us a rheumatism, an inflammatory affection, or a so-called neuralgia. The main difficulty in deciding this question is evidently whether in recognizing this disease, neuralgia, we are obliged to rely upon purely objective symptoms; for unquestionably diagnosis becomes so much the more certain the greater the amount of objective signs accessible to perception by the senses upon which it can be based. In this point of view Türck's observation was of importance, to the effect that in neuralgia there at times exists a hyperæsthesia, but still more frequently an anæsthesia, of the cutaneous surface corresponding to the location of the deeper-seated pains. The only author who has shown some appreciation of this statement is Traube, who says that in all the cases investigated by him the hyperæsthesia or analgesia could be demonstrated, even in the intervals of freedom from pain, indifferently whether the neuralgia was of central or peripheral origin. Dr. Nothnagel states that he has investigated all the cases that have come before him, to the number of sixty or seventy, for some years past, in reference to cutaneous sensibility. He has not included amongst these any cases of painful *internal* affections, but has limited himself to the observation of the painful affections of the superficial nerves, including those of the fifth occipital, supra-clavicular, intercostal, and cutaneous nerves of the abdomen, with the

individual branches of brachial, lumbar, and sacral flexuses. He has excluded those forms as far as possible in which a central affection lay at the foundation of the neuralgia, also cases of epilepsy and hysteria, and cases in which there was a demonstrable anatomical lesion; whilst, on the contrary, he has paid particular attention to those cases which were traceable to catching cold, the questionable cases of neurites with neuralgic phenomena, cases of so-called irradiated neuralgia (for example, in the intercostal nerves in *ulcus ventriculi*), and finally the neuralgias of malarial poisoning.

Now, in all these M. Nothnagel states that he has been able constantly and without exception to corroborate the remarks of Traube, and establish an alteration of the cutaneous sensibility, either a hyperæsthesia—or, more correctly, a hyperalgesia—or an anæsthesia; and it proved to be a rule that at the commencement of the neuralgia there was cutaneous hyperalgesia, but upon longer continuance diminution of sensibility. The various qualities of the sense of touch were tested in the investigation, as its sensitiveness to the prick of a needle, to variations of temperature and pressure, and to the electric current.

Impressions of touch are perceived much more vividly on the affected side than upon the healthy one, so that slight needle-pricks cause pain, and contact with a metallic substance of the temperature of the room may call forth general chills. Yet there is no actual hyperæsthesia, *i.e.* no increased power to distinguish slight *differences* in sensation; it is therefore properly termed hyperalgesia. The anæsthesia that usually occurs in the later periods is comparatively slight, and may easily be overlooked unless the testing is carefully performed. *Partial* paralysis of sensation does not occur in this form of anæsthesia. The disturbance of cutaneous sensibility stands in a relation varying as to its seat with the extent of the spontaneous pains. We often see that it accurately corresponds to the cutaneous distribution of the nerve-branch or trunk to which the pain is referred. Just as often, however, the exceedingly remarkable fact exists, that with a neuralgia of a nerve-branch or nerve-trunk quite limited in extent, the cutaneous hyperæsthesia or anæsthesia appears to extend over the whole of the corresponding half of the body—a fact to which Türk some time ago called attention, and which Dr. Nothnagel states he can fully confirm. From an examination of his cases, Dr. Nothnagel draws the conclusion that in the first two to eight weeks an increased sensibility of the skin exists; then in the after-course the anæsthesia is developed; and further, that not only, as Türk assumed, does cutaneous hyperæsthesia or anæsthesia

occur in neuralgia, but that the same may also occur with any deep-seated pain from other causes. Dr. Nothnagel is of opinion that the pain, as such—the physiological process in the perception of pain—causes the changes of cutaneous sensibility, the hyperæsthesia as well as the anæsthesia, and considers it to be probable that we must seek in the central ganglion cells the changes which cause the anæsthesia and hyperæsthesia of the skin in neuralgia and other pains.—*Virchow's Archiv*, Vol. liv., *Philadelphia Medical Times*, 1872.

**Malignant Facial Carbuncle**,—Fred. J. de Lisle, L.R.C.P., Guernsey, reports that a young actress, age 19, noticed a slightly painful pimple on the upper lip.

The pain and swelling increasing rapidly, from the application of eau de cologne to the scratched surface, she called Dr. Carey next day, May 26th, who found considerable induration, and learned that the patient had experienced much unusual languor, depression and lethargy for weeks before, although her appetite had been unimpaired. He ordered *one grain* of quinine three times a day.

Pain, induration and swelling went on increasing for four days—when fluctuation being detected, the part was lanced, and a healthy pus appeared; but the patient feeling much worse, she entered St. Peter Port Hospital the same evening.

May 31st. She came under the care of Dr. de Lisle. The upper lip then showed much induration, pain and swelling, of a bright red blush, which extended over the entire left cheek and closed the eye. The tongue was furred, breath fetid, and no sleep could be obtained from the pain. These symptoms intensified from hour to hour to the end. At first dulness of comprehension is noticed—then low muttering delirium—which soon becomes violent, and finally more quiet from anodynes and exhaustion. She also showed decubitus and picking of the bed-clothes. Her pulse, at first 140, became finally 170, and uncountable. Temp., at first 103°, became 105°, with the skin at first hot and dry—afterwards cooler and clammy. Crepitus was also noticed at base of both lungs, and there was suppression of urine during the last day. All these symptoms went on intensifying to the end. She died on June 3d, at 7 A.M. The treatment was as follows: May 31st. R. Tinct. ferri perch., ℥ x.; Liq. strych., ℥ v.; Quinæ sulph., gr. j., every three hours. Syringed the lip and mouth with a dilute lotion of permanganate of potash, and gave an anodyne mixture at night; milk, eggs, and wine *ad libitum*. June 2d. Quantity of quinine was doubled. In conclusion, it is remarked: "It is



probable that death was caused by septicæmia. There was no rigor, yet the suppression of the urine is believed to be due to blood-poisoning. It is advised to push the quinine to cinchonism in such cases; but owing to some peculiarity in the climate of Jersey, or other cause, large doses of quinine are badly borne. The reason for combining the perchloride of iron and strychnine with the quinine is the powerful tonic and antiseptic properties possessed by this salt of steel, and the beneficial effects of this alkaloid when administered in cases of depressed nervous energy."—*Medical Times and Gazette*, July 5, 1873.

**Death through Gonorrhœa and Chordee.**—This remarkable case occurred in the wards of Dr. Villeneuve, in one of the Marseilles hospitals. The patient was a man of twenty-three. The gonorrhœa was very intense, and accompanied by chordee and continual erections. Six leeches were applied to the root of the penis. Two days after an eschar formed on the most culminating situation of the penis, and on falling uncovered the corpora cavernosa and urethra to the extent of three or four centimetres. Rigor occurred five days after, followed by pain in the joints of the upper limbs. Some amendment ensued, but on the fifth day later purulent effusion in the left elbow was discovered; delirium then supervened, and the patient died after an arterial hemorrhage through the wound in the penis. At the *post-mortem* the following lesions were observed:—Denudation of the corpora, phlebitis of the prostatic plexus, metastatic abscesses in the liver and left lung, pus in the muscles and elbow-joint of the right arm. The course of the disease had been as follows:—Urethritis, inflammation of the corpora, phlebitis of the plexus of the penis and prostate, pyæmia.—*The Lancet*, May 3, 1873.

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## Therapeutical Notes.

### Scarlet Fever—Suggestions concerning its Treatment.

—Dr. George Bayles, of New York, presents a few suggestions which, although not strictly original, are timely and practical, therefore deserving of consideration. The Doctor first directs attention to the very apt and significant analogies existing between the several varieties and characteristic stages of scarlatinal fevers and other well characterized and individualized diseases. From these analogies he wisely adopts Chomel's sound aphorism, that "the treatment ought to be rational and symptomatic, regulated by *common sense* and experience." He then urges the importance and absolute necessity of adopting from the onset a treatment which will favor the elimination of the specific poison, that is, by endeavoring to regulate the excretory and secreting functions. Therefore special suggestions are made as regards the most effectual means of reducing the temperature of the body, also of moderating the vascular excitement, which will necessarily tend to restore the normal action of the skin and kidneys; then in the more asthenic forms to stimulate the action of the entire glandular system. He thus advocates the restricted and modified use of tartar emetic, also of cold water as a bath, a pack, and even as a plunge in extreme cases of exceptionally high vascular excitement, increased temperature and consequent disturbances of the nervous system. The doctor also refers to the remarkable action of the inunction of theobroma as a depressant of caloric as well as its nutrient properties by absorption when thus applied. When the disease passes into the second stage, or is from its inception asthenic, he dwells upon the undoubted importance of oxygen, which should be made use of *ad libitum*. The value of the hyposulphite of soda in the early stages, and as a prophylactic; of the carbolic acid and chlorate of soda mixture internally in the diphtheritic form; and of the muriate of ammonia, chlorate of potassa, and muriated tincture of iron mixture as an eliminating agent and general tonic, are alluded to. The importance of the preservation of a proper balance between the action of the nervous and circulatory systems is never lost sight of, and which as pointed out depends upon a sound hygiene, dietary, and therapeutically. (There are forms of scarlatina anginosa in

which the value of carbolic acid or chlorinated soda as a spray cannot be too much dwelt upon).—*New York Med. Jour.*, September, 1873.

**The Earth-Cure in Gonorrhœa and Gleet.**—DR. JOSEPH GROVES, of London, in a letter to *The Lancet*, giving an account of what he saw of the application of earth in surgery, by Dr. Hewson, of Philadelphia, during a recent visit to Nice and Rome, reports the following cases in his own practice:—

1. An American gentleman in Rome asked me to prescribe for him, as he had gonorrhœa. It was very acute, with chordee and severe pain during micturition. As he had bound me to secrecy, I could not borrow a small double-tubed catheter which Dr. Hewson uses in these cases, and was obliged to inject a large quantity of muddy water with an ordinary syringe. The patient was greatly relieved by the first application, which was repeated on the two succeeding days, though the discharge and pain had ceased on the second day. The patient had a dose of chloral and an aperient each night.

2. A young Roman, a friend of the previous, came to me complaining of rheumatism. He had had a gleet eight months. I injected the urethra with muddy water every other morning for ten days, when the discharge ceased. The rheumatic pains ceased also; supporting, therefore, my friend Dr. Bond's theory of the cause of gonorrhœal rheumatism. This patient took iron and arsenic in small doses, as he was somewhat anæmic.—*The Lancet*, June 21, 1873.

**Resina Copaibæ as a Substitute for simple Copaiba.**—DR. WILKS, of London, furnishes the profession with the following formula for its administration: "Resin of copaiba, three drachms; rectified spirit, five drachms; spirit of chloroform, one drachm; mucilage of acacia, two ounces; water, to make twelve ounces. An ounce (containing fifteen grains) to be taken three times a day. He adds that many communications have come to him affirming the superiority of the pure resin over the oleo-resin in the absence of odor, at the same time that the diuretic property remains. One patient, a medical man suffering from cardiac dropsy, and who had taken the ordinary remedies without much benefit, commenced the resin in the form of a pill, taking three pills, containing five grains of the resin in each, three times daily. Diuresis at once commenced, with a departure of all the fluid from the abdomen and legs.—*The Lancet*, June 21, 1873.

**Burgundy Pitch in Malignant Pustules.**—DR. ACACIO CALDEIRA mentions his success in the treatment of malignant pustule. Under the influence of the application of Burgundy pitch mortification is rapidly stopped, and the lesion is reduced to the condition of an ordinary wound. The substance is applied twice daily in the form of plaster, and, better still, in powder. A good plan is to sprinkle the powder first, and then cover the wound with the plaster. The epidermis must be removed so as to favor the effect of the powder.—*Jornal da Sociedade das Sciencias Medicas da Lisboa.*

**Belladonna.**—In some interesting communications, Dr. Sydney Ringer brings forward an abundance of evidence to prove that belladonna and its active principle are able to check and prevent sweating, whether the result of disease or induced by an exposure to an elevated temperature. In the former case, his observations enable him to conclude that  $\frac{1}{100}$ th of a grain of atropia injected under the skin, is generally sufficient to check sweating for one night. This dose produces dryness of the fauces, but it does not dilate the pupils. Stramonium, it was found, is able to exert the same influence.—*Practitioner*, October, 1872.

**Treatment of Dermatophyta.**—The severer parasiticides, Dr. S. M. Bradley of Manchester observes, may eradicate this obstinate disease, but when the face is attacked such remedies are worse than the disease. The Doctor has found that the fungus will perish in a short time by excluding air and light from the affected spot, by laying on warm, with a camel's-hair brush, a solution of carbolic acid in Canada balsam (one part to ten), tinted when dry with Indian ink. The fungus being destroyed, the patient is cured in about a fortnight.—*The Lancet*, 1873.

**Syphilitic Meningitis rapidly cured by Iodide of Potassium.**—The symptoms were as follows:—Persistent cephalalgia, contraction of the muscles of the nape of the neck, dilatation of pupils, alternate redness and paleness of the face, slowness of speech, groaning, contraction of limbs, vomiting, etc.; pulse, 88 to 92; temperature, nominal. On the eighth day a treatment, consisting of mercurial frictions, and from a half to one drachm of iodide of potassium internally, was begun, and then the latter remedy alone was employed; the amendment was most rapid after three days. The use of the iodide was suspended as a trial, and the headache returned, but resumption of the remedy again removed it, and at the end of eight days the patient (a syphilitic woman) left the hospital entirely recovered.—*Foreign Gleanings—Lancet*, August, 1873.

## About Books.

ON THE ETIOLOGY OF HEREDITARY SYPHILIS. ON THE PROGNOSIS OF SYPHILIS. By F. R. STURGIS, M.D. Pamphlets, pp. 88 and 8. D. Appleton & Co.: New York.

In the first *brochure* the author divides his subject into two parts: in the first he endeavors to show that which has been for some time generally recognized, save by a few, for a child to become syphilitic by inheritance the mother must have been diseased, or, in other words, that the semen is *per se* incapable of transmitting syphilis. In the second part, he briefly and in a very critical manner reviews the cases advanced in support of the theory of the paternal influence by Hutchinson, of London, Langston Parker, Diday and others of equal weight; and demonstrates that, to arrive at definite conclusions, it will be necessary to make new and independent observations. The author appears to be entirely ignorant of the fact that this subject has been thoroughly discussed by M. H. Mireur, in an admirable critical essay published in 1867, entitled *Essai sur l'hérédité de la syphilis*.

In the other *brochure* the author advances nothing new; for it has, for some years, been generally admitted that syphilis is a self-limited disease, and in the adult, as a rule, curable; whilst in infancy, especially in the inherited form, it is in the great majority of cases necessarily fatal, owing to the nature of the lesions.

DISEASES OF THE URINARY ORGANS: INCLUDING STRICTURE OF THE URETHRA, AFFECTIONS OF THE PROSTATE, AND STONE IN THE BLADDER. By JOHN W. S. GOULEY, M.D. 1 vol. 8vo. Pp. 868. New York: William Wood & Co. 1878.

In the preface the author states that "this work is based on lectures given at Bellevue Hospital," and other "public institutions with which he has been connected." He has "endeavored to write a handy-book on the pathogeny, clinical history, and treatment of some of the graver surgical diseases of the male urinary organs." While the book possesses the merit of covering the author's personal experience, which is a creditable one, as a whole it is a desultory performance and scarcely deserves the prominent title given to it. The only portion of the work that calls for special mention is that devoted to an exposition of the author's own views regarding the use of tunnelled sounds, etc., all of which has already been published in different journals during the past five years. In the citation of authors, Dr. Gouley has shown a marked preference for the

French; the English are mentioned now and then, and his American "friends" are used mainly to corroborate his own views and successes. The Germans appear to have been entirely forgotten. As already stated, the work possesses the merit of embodying the views and practice of the author. It will not serve the purpose of what is known as a "text-book," since it fails to cover the ground of the subject it professes to treat on. It is carefully written, and illustrated with a number of wood-cuts of instruments, many of which have already done service in former publications.

**HANDBOOK OF PHYSIOLOGY.** By WILLIAM STENHOUSE KIRKES, M.D. Edited by W. MORRANT BAKER, F.R.C.S. A new American from the eighth enlarged English edition. Illustrated. 1 vol. Philadelphia: Henry C. Lea. 1873.

THIS is an excellent guide-book in the study of physiology. It gives a good account of our knowledge of physiology in a condensed form without omitting any of the details which are of any consequence. It is already well known to the student of physiology, and the last edition embraces the results of all recent investigations of a practical character. It contains two hundred and forty-eight illustrations beautifully engraved on wood. It will prove a most interesting work to those interested in the study of this branch of medicine.

**THE DISEASES OF THE PROSTATE, THEIR PATHOLOGY AND TREATMENT, COMPRISING THE JACKSONIAN PRIZE ESSAY FOR THE YEAR 1860.** By Sir HENRY THOMPSON, F.R.C.S. Fourth edition. 1 vol. 8vo. Philadelphia: Henry C. Lea. 1873.

It is almost needless to do more than call attention to the fact that a fourth edition of this excellent work has been published, which contains several additions. Some changes have also been made in the arrangement and material of some of the chapters. It remains the standard work on this branch of surgery. It must, of necessity, form part of every surgical library.

**A MANUAL OF MEDICAL JURISPRUDENCE.** By ALFRED SWAYNE TAYLOR, M.D., F.R.S. Seventh American edition, revised from the author's latest notes, and edited with additional notes and references by JOHN J. REESE, M.D., with illustrations on wood. 1 vol. 8vo. Philadelphia: Henry C. Lea. 1873.

In the seventh American edition of the "Manual of Medical Jurisprudence," the editor has, through the courtesy of Dr. Taylor, enjoyed the very great advantage of consulting the sheets of the new edition of the author's larger work, "The Principles and Practice of Medical Jurisprudence." The new edition contains the author's latest views upon the

various topics discussed throughout the work. Valuable references to American practice and decisions are added by the editor, serving to make the present volume most complete for the American reader. It is beyond question the most attractive as well as the most reliable manual of medical jurisprudence published in the English language. It contains many engravings to illustrate the text. The printing, paper and binding are excellent.

**THE SCIENCE AND ART OF SURGERY. BEING A TREATISE ON SURGICAL INJURIES, DISEASES, AND OPERATIONS. BY JOHN ERIC ERICHSEN. A new edition, enlarged and carefully revised by the author. 2 vols. 8vo. Philadelphia: Henry C. Lea. 1873.**

It is evident that no labor has been spared in the revised edition of this admirable text-book of surgery, to keep it well abreast of the advancements in surgical science and practice. The conservatism and completeness of the work in all the details of the art, as well as the science of surgery, has been so well appreciated in this country, that it is scarcely necessary to do more than call the reader's attention to the fact that the advances made since the fifth edition was published—about three years ago—are carefully embraced in this, the sixth edition. The work is well made. Many new illustrations have been added, and it is in all respects most creditable both to the author and those who have assisted him in the revision.

**THE PRINCIPLES AND PRACTICE OF SURGERY. BY FRANK HASTINGS HAMILTON, A.M., M.D., LL.D., ETC., ETC. Illustrated. Second Edition. Revised and corrected. 8vo. New York: William Wood & Co. 1872.**

In the preface the author states his purpose—"in the preparation of this work, to supply within the compass of a single volume of moderate size, the instruction necessary to a full understanding of all the subjects belonging properly and exclusively to surgery: the volume being intended as a text-book for students, and, at the same time, as a direct and complete guide to the surgeon." This was an exceedingly difficult undertaking, and any one who can appreciate the largeness of the subject will not be surprised at the signal failure of our author in his self-imposed task. The fact is, we have already too many of these so-called condensed text-books. They are really not up to the standard required by a good student, and certainly do not answer "as a direct and complete guide to the surgeon." The student who is desirous of studying surgery has a good choice in many admirable works by authors who aim at conveying a good knowledge of the principles and practice of surgery, and who do not take especial pains to confine themselves within a single volume. The science and art of surgery is too large to be treated in this small way. Thirteen pages devoted to Syphilis—large type and extra leaded at that! Forty pages devoted to the "Surgery of the eye, and its appendages!" This desultory (this is the

mildest term we can use) treatment of great subjects may answer Dr. Hamilton's purpose so far as his own students are concerned, but it will not add to his own reputation or enhance the value of his work in the estimation of good students, nor will it serve as a "complete guide to the surgeon." These readily made works do not serve any good purpose. In speaking as we have, we do so with no unkindly feeling towards Dr. Hamilton. His excellent work on Fractures and Dislocations bears evidence of his ability as a surgeon, and it is, with us, a matter of regret that he should appear as the author of this work on surgery. The book is illustrated very fully with wood engravings very coarsely executed. It is well printed on good paper.

**A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE ; DESIGNED FOR THE USE OF PRACTITIONERS AND STUDENTS OF MEDICINE. By AUSTIN FLINT, M.D. Fourth Edition, carefully revised. 1 vol. 8vo. Philadelphia: Henry C. Lea. 1873.**

THE fourth edition of this admirable work contains all that was good in the last edition, as well as the results of all that has been done in practical medicine since the last edition was published. It is a model text-book and work of reference. Every page bears evidence of the author's judgment and skill as a clinical teacher, as well as extraordinary literary skill in conveying to the reader the results of his vast practical experience at the bedside. We notice this work with sincere pleasure—for it is a good one, and because we feel assured that it will prove of great value and interest both to the student and practitioner. The book is well made in all the details of printing, paper, and binding.

**THE CEREBRAL CONVOLUTIONS OF MAN, REPRESENTED ACCORDING TO ORIGINAL OBSERVATIONS, ESPECIALLY UPON THEIR DEVELOPMENT IN THE FÆTUS. By ALEXANDER ECKER. Translated by ROBERT S. EDES, M.D. New York: D. Appleton & Co. 1873.**

IN this modest little volume the accomplished Professor of Anatomy in the University of Freiberg, essays to lay an anatomical foundation for a more accurate physiological and pathological knowledge of the human cerebrum. To those engaged in solving the mysterious problems of the brain and brain disease this interesting little volume will be especially interesting. It is evidently the result of great labor and original research.

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### Obituary.

RECENT dispatches announce the death of the distinguished French Surgeon, M. Nélaton. He died on the twenty-first day of September, in the seventy-sixth year of his age. A fuller notice of his brilliant and scientific career will appear in our next issue.



## INDEX TO VOL. IV.

---

|   | PAGE |
|---|------|
| ACCETELLA, DR. Chloral in Venereal Ulcers.....  | 186  |
| Acne and its Treatment. By Dr. Tilbury Fox.....   | 337  |
| ADRIAN, M. The Nature of Hypertrophic Lichen.....   | 277  |
| "    M. On Hypodermic Injections .....  | 182  |
| AITKEN, DR. WM. Book Notice. The Science and Practice of Medicine.                            | 91   |
| Albinismus. By Mr. W. R. Jeffries.....  | 177  |
| ANSTIE, DR. F. E. Syphilitic Facial Neuralgia cured by the Iodide of Potassium.....           | 284  |
| ANDERSON, DR. MCCALL. Book Notice. Treatment of Diseases of the Skin.....                     | 191  |
| Arsenic: its Therapeutical Application to Diseases of the Skin. By Eugene Peugnet, M.D.....   | 8    |
| ATTFIELD, DR. JOHN. Book Notice. Chemistry, etc.....  | 288  |
|   |      |
| BARETY, M. A. Syphilitic Cachexia, etc.....   | 368  |
| BAYLES, DR. GEORGE. Scarlet Fever.....  | 377  |
| BAZIN, M. On the Relations of Cutaneous Affections, etc.....                                  | 138  |
| Belladonna, Communication on. By Dr. Ringer.....  | 379  |
| BERGONZOLI, DR. F. On Chronic Eczema of the Legs.....   | 185  |
| BIZZOZERS, DR. Tuberculosis of the Skin.....  | 371  |
| Bladder, On the Detachment of Urinary Concretions from the Walls of the. By Dr. Reliquet..... | 83   |
| BLACHER, DR. E. Book Notice. Du Traitement de la Syphilis.....                                | 189  |
| BRADLEY, DR. S. M. Treatment of Dermatophyta.....   | 379  |
| BREMOND, M. Absorption of Medicinal Substances by the Skin.....                               | 176  |
| BRINTON, DR. Treatment of Urethral Fever.....   | 85   |
| BRYANT, ESQ., THOMAS. Book Notice. The Practice of Surgery.....                               | 287  |
| Burgundy Pitch in Malignant Pustules.....   | 378  |
|   |      |
| Calcium, Bromide of, in the Treatment of Syphilitic Neuralgia.....                            | 306  |
| Camphor in Hospital Gangrene, Application of Powdered. By M. Netter                           | 186  |
| Carbuncle, Malignant Facial. By F. J. Delisle.....  | 375  |
| CARTER, DR. H. V. On the Pathology of Leprosy.....  | 302  |
| Carbolic Acid. Effect of, on the Urine. By Dr. W. A. Patchett.....                            | 371  |

|   | PAGE |
|---|------|
| CARMALT, DR. W. H. Development of Cancer of the Skin.....                                 | 372  |
| Cervix Uteri, Venereal Ulcerations of the. Review. by M. H. Henry,<br>M.D.....            | 28   |
| Cerebral Convolutions of Man, etc. By Dr. Alexander Ecker. Book<br>Notice.....            | 383  |
| CHAPMAN, DR. EDWIN N. Book Notice. Hysterology, etc.....                                  | 92   |
| Charbon. Treatment of Contagious. By Dr. Wasservogl.....                                  | 282  |
| CHAUFFARD, M. The Etiology of Typhus.....   | 280  |
| Chancre, Secondary Indurations and Transformations of. By Dr. Alfred<br>Fournier.....     | 51   |
| Chemistry : General Medical and Pharmaceutical. By Dr. John Attfield.<br>Book Notice..... | 288  |
| Chloral Hydrate in Soft Ulcers and Ulcerated Buboës. Local use of....                     | 282  |
| “ in Venereal Ulcers. By Dr. Accetella.....   | 186  |
| CLARKE, MR. ANDREW. Syphilitic Sore on the Female Nipple.....                             | 83   |
| CLYMER, DR. MEREDITH. Book Notice. Epidemic Cerebro-Spinal<br>Meningitis.....             | 93   |
| COHEN, DR. J. S. Book Notice. Diseases of the Throat.....                                 | 189  |
| COHN, DR. Organism in Vaccine Virus.....  | 178  |
| Copaiba Resina as a Substitute for Simple Copaiba.....                                    | 378  |
| Cutaneous Respiration. By M. Röhrig.....  | 175  |
| “ Sensibility, On the Disturbances of. By Dr. H. Nothnagel..                              | 374  |
| “ Affections, On the Relations of. By M. Bazin.....                                       | 138  |
| Cystitis, Treatment of. By Dr. Pouliot.....   | 282  |
| DAMON, DR. HOWARD F. New Treatment of Venereal Diseases. Book<br>Notice.....              | 80   |
| DELAFIELD, DR. FRANCIS. A Case of Syphilitic Tumors of the Spinal<br>Nerves.....          | 26   |
| “ DR. F. Book Notice. Hand-Book of Post-mortem Exam-<br>inations.....                     | 189  |
| Depilating Forceps, A New Pair of. By Dr. M. H. Henry.....                                | 94   |
| Dermatophyta, Treatment of. By Dr. S. M. Bradley.....                                     | 379  |
| DUCKWORTH, DR. DYCE. Four Cases of Molluscum Contagiosum.....                             | 372  |
| Dugong Oil. By Dr. Holt.....  | 88   |
| DUHRING, DR. L. A. Review on Diseases of the Skin.....                                    | 34   |
| DUNGLISON, DR. ROBLEY. Book Notice. The History of Medicine...                            | 91   |
| DUNCAN, DR. MATHEWS. Gonorrhœa of the Ducts of Cowper's<br>Glands.....                    | 170  |
| DURHAM, MR. Plastic Operation on the Urethra of a Boy.....                                | 373  |
| Dysidrosis, On. By Tilbury Fox, M.D.....  | 1    |
| ECKER, DR. ALEXANDER. Book Notice. The Cerebral Convolutions of<br>Man, etc.....          | 383  |
| Eczema of the Legs. By Dr. F. Bergonzoli.....   | 185  |
| “ Soap as a Cause of. By R. M.....  | 83   |
| Editorial.....  | 95   |

# INDEX.

387

|  | PAGE |
|--|------|
| Elephantiasis Græcorum. By Dr. Robert Liveing.....   | 231  |
| Epithelial Disease grafted on a Congenital Wart. Dr. Gross.....                                    | 78   |
| ERICHSEN, JOHN ERIC. Book Notice. The Science and Art of Surgery .....                             | 382  |
| FLINT, DR. AUSTIN. Book Notice. A Treatise on the Principles and Practice of Medicine.....         | 388  |
| FOSTER, DR. F. P. Vaccinal Syphilis.....   | 201  |
| FOURNIER, DR. ALFRED. Secondary Indurations and Transformations of Chancre .....                   | 51   |
| “ DR. ALFRED. Onyxis and Perionyxis as Accidents of Secondary Syphilis.....                        | 61   |
| “ DR. ALFRED. Secondary Adenopathies of Syphilis.....  | 149  |
| FOX, DR. TILBURY. Acne and its Treatment.....  | 337  |
| “ DR. TILBURY. On Dysidrosis .....   | 1    |
| FRISBIE, DR. Case of Pessema.....  | 82   |
| GAY, ESQ., JOHN. On certain Fatty or Lipomatous Tumors.....  | 168  |
| GILLETTE, DR. W. R. A new Method of Dilatation by means of Sponge Tents in Cases of Phimosis ..... | 104  |
| Glands, Enlarged. By M. Malassez.....  | 80   |
| GODFREY, DR. BENJAMIN. Obituary .....  | 95   |
| Gonorrhœa and Gleet, The Earth-Cure in.....  | 378  |
| “ and Chordee. Death through. Reported by Dr. Villeneuve.  | 377  |
| “ and Gleet by Medicated Bougies, The Treatment of. By M. G. Lorey.....                            | 181  |
| “ im Weiblichen Geschlecht, Die Latente. By Dr. Emil Noeggerath. Book Notice.....                  | 187  |
| “ of the Ducts of Cowper's Glands. By Dr. Mathews Duncan.  | 170  |
| GOULEY, DR. J. W. S. Book Notice. Diseases of the Urinary Organs.                                  | 380  |
| GROSS, DR. S. D. Syphilitic Dactylitis.....  | 78   |
| “ DR. S. D. Epithelial Disease grafted on a Congenital Wart....                                    | 78   |
| GUILLEMIN, DR. On the Employment of Iodine in the Treatment of Syphilis .....                      | 68.  |
| GÜNTZ, DR. T. E. The Treatment of Syphilis, etc.....   | 179  |
| HAMILTON, DR. F. H. Book Notice. The Principles and Practice of Surgery.....                       | 382  |
| HAMMOND, DR. W. A. Bromide of Calcium in the Treatment of Syphilitic Neuralgia.....                | 306  |
| Harvard University, Catalogue of.....  | 190  |
| HEBRA, PROF. F. Affections of the Skin occurring in Pregnant and Puerperal Women.....              | 156  |
| HENRY, DR. M. H. Syphilis: its Relations to Marriage. Review.....                                  | 311  |
| “ “ Venereal Ulcerations of the Cervix Uteri. Review.  | 28   |
| “ “ A New Pair of Depilating Forceps.....  | 94   |
| “ “ The Treatment of Syphilis.....   | 97   |

|   | PAGE              |
|---|-------------------|
| HENRY, DR. M. H. The Communication of Syphilis in the Practice of Vaccination. Review.....              | 112               |
| HEWITT, DR. GRAILY. Book Notice. The Pathology, Diagnosis, and Treatment of Diseases of Women, etc..... | 93                |
| HOLT, DR. On Dugong Oil.....  | 88                |
| HULKE, MR. J. W. The Prognosis of Warts.....  | 176               |
| HUTCHINSON, MR. JONATHAN. Treatment of Phagædenic Chancres by Continuous Irrigation.....                | 84                |
| “ MR. JONATHAN. Clinical Remarks on a Case of Non-Veneræal Syphilis.....                                | 165               |
| Hydrocele, An Extraordinary Case of. By Dr. John G. Meachem.....  | 79                |
| “ of the Seminal Vesicle. By Dr. N. R. Smith.....   | 166               |
| Hydroa, Case of. By Dr. C. Handfield Jones.....   | 365               |
| Hypertrophic Lichen, The Nature of. By M. Adrian.....   | 277               |
| Hypodermic Injections. By M. Adrian.....  | 182               |
| Hysterology. By Dr. Edwin N. Chapman. Book Notice.....  | 92                |
| JEFFRIES, MR. W. R. On Albinismus.....  | 177               |
| JONES, DR. C. HANDFIELD. Case of Hydroa.....  | 365               |
| Jurisprudence, A Manual of. By Dr. A. S. Taylor. Book Notice.....                                       | 381               |
| KIRKES, DR. W. S. Book Notice. Hand-Book of Physiology.....   | 381               |
| KÜBNER, DR. H. On Reniflection in Constitutional Syphilis.....  | 128               |
| LANCERAUX, DR. E. Contagious Character of Measles.....  | 372               |
| “ DR. E. The Visceral Lesions of Inherited Syphilis.....  | 319               |
| Leprosy in the West Indies.....   | 275               |
| “ On the Pathology of. By Dr. H. V. Carter.....   | 362               |
| LEWIN, DR. GEORGE. The Treatment of Syphilis with Subcutaneous Sublimate Injections. Book Notice.....   | 89                |
| Lichen Rubra of Hebra.....  | 372               |
| Lipomatous Tumors, On Certain Fatty or. By John Gay, Esq.....   | 168               |
| LISLE, F. J. DE. Malignant Facial Carbuncle.....  | 375               |
| LIVEING, DR. ROBERT. Lectures on Elephantiasis Græcorum.....  | 231               |
| LOREY, M. G. The Treatment of Gonorrhœa and Gleet by Medicated Bougies.....                             | 181               |
| Lupus Erythematosus Treated with Woodhall Water.....  | 285               |
| LUSSACRA, DR. The Cause of Pellagra.....  | 80                |
| MALASSEZ, M. Enlarged Glands.....   | 80                |
| MAURIAC, DR. CHARLES. Treatment of Paraphimosis.....  | 87                |
| “ DR. CHARLES. On the Early Syphilitic Affections of the Bones.....                                     | 43, 160, 267, 351 |
| MEACHEM, DR. J. G. An Extraordinary Case of Hydrocele.....  | 79                |
| Measles, Contagious Character of. By Dr. E. Lanceraux.....  | 372               |
| Medicine, The History of. By Dr. Robley Dunglison. Book Notice.....                                     | 91                |
| “ A Treatise on the Principles and Practice of. By Dr. Austin Flint. Book Notice.....                   | 383               |

|   | PAGE |
|---|------|
| Medicine, The Science and Practice of. By Dr. Wm. Aitken. Book Notice.....                            | 91   |
| Melanodermas, The. By Dr. E. Peugnet. Review.....   | 205  |
| Meningitis, Epidemic Cerebro-Spinal. By Dr. Meredith Clymer. Book Notice.....                         | 93   |
| Molluscum Contagiosum, Four Cases of. By Dr. Dyce Duckworth ....                                      | 372  |
| Nerve Nævi. By Dr. Simon.....   | 178  |
| NETTER, M. Application of Powdered Camphor in Hospital Gangrene.                                      | 186  |
| NEUMANN, DR. J. Influence on the Skin of the Bromide of Potassium.                                    | 283  |
| NOEGGERATH, DR. EMIL. Book Notice. Die Latente Gonorrhœe im Weiblichen Geschlecht.....                | 187  |
| NÉLATON, M. Obituary.....   | 384  |
| NOTHNAGEL, DR. H. On the Disturbances of Cutaneous Sensibility...                                     | 374  |
| NUNN, MR. T. W. Treatment of Lupus Erythematosus.....   | 285  |
| OTTO, DR. Hypodermic Injection of Quinine.....  | 88   |
| Onychia Maligna treated by Nitrate of Lead.....   | 285  |
| Ovarian Tumors; their Pathology, Diagnosis, and Treatment. By Dr. E. R. Peaslee. Book Notice.....     | 90   |
| Paraphimosis, Treatment of. By Dr. Charles Mauriac.....   | 87   |
| PATCHETT, DR. W. A. Effect of Carbolic Acid on the Urine.....   | 371  |
| PARRY, DR. JOHN S. Book Notice. Two Lectures on Inherited Syphilis.....                               | 187  |
| PEASLEE, DR. E. R. Book Notice. Ovarian Tumors, etc.....  | 90   |
| Pellagra, The Cause of. By Dr. Lussacra.....  | 80   |
| PERCY, DR. S. R. Book Notice. The Physiological Value of Phosphorus as an Organismal Element.....     | 92   |
| Pessema, Case of. By Dr. Frisbie.....   | 82   |
| PETTROW, M. Alterations of the Nervous System in Constitutional Syphilis.....                         | 281  |
| PEUGNET, DR. E. The Melanodermas. Review.....   | 205  |
| “ DR. EUGENE. Arsenic: its Therapeutical Value in Diseases of the Skin.....                           | 8    |
| Phagædenic Chancres, Treatment of by Continuous Irrigation. By Mr. Jonathan Hutchinson.....           | 84   |
| Phimosis, A New Method of Dilatation by means of Sponge Tents in Cases of. By Dr. W. R. Gillette..... | 104  |
| Phosphorus; its Physiological Value as an Organismal Element. By Dr. S. R. Percy. Book Notice.....    | 92   |
| Physiology, Hand-book of. By Dr. W. S. Kirkes. Book Notice.....                                       | 381  |
| PIFFARD, DR. H. G. A Guide to Urinary Analysis. Book Notice....                                       | 288  |
| Post-mortem Examinations, Hand-book of. By Dr. F. Delafield. Book Notice.....                         | 189  |
| Potassium employed Internally; Pathogenic Influence on the Skin of Bromide of. By Dr. J. Neumann..... | 283  |
| POULIOT, DR. Treatment of Cystitis.....   | 282  |

**Burgundy Pitch in Malignant Pustules.**—Dr. ACACIO CALDEIRA mentions his success in the treatment of malignant pustule. Under the influence of the application of Burgundy pitch mortification is rapidly stopped, and the lesion is reduced to the condition of an ordinary wound. The substance is applied twice daily in the form of plaster, and, better still, in powder. A good plan is to sprinkle the powder first, and then cover the wound with the plaster. The epidermis must be removed so as to favor the effect of the powder.—*Jornal da Sociedade das Sciencias Medicas da Lisboa*.

**Belladonna.**—In some interesting communications, Dr. Sydney Ringer brings forward an abundance of evidence to prove that belladonna and its active principle are able to check and prevent sweating, whether the result of disease or induced by an exposure to an elevated temperature. In the former case, his observations enable him to conclude that  $\frac{1}{10}$ th of a grain of atropia injected under the skin, is generally sufficient to check sweating for one night. This dose produces dryness of the fauces, but it does not dilate the pupils. Stramonium, it was found, is able to exert the same influence.—*Practitioner*, October, 1872.

**Treatment of Dermatophyta.**—The severer parasiticides, Dr. S. M. Bradley of Manchester observes, may eradicate this obstinate disease, but when the face is attacked such remedies are worse than the disease. The Doctor has found that the fungus will perish in a short time by excluding air and light from the affected spot, by laying on warm, with a camel's-hair brush, a solution of carbolic acid in Canada balsam (one part to ten), tinted when dry with Indian ink. The fungus being destroyed, the patient is cured in about a fortnight.—*The Lancet*, 1873.

**Syphilitic Meningitis rapidly cured by Iodide of Potassium.**—The symptoms were as follows:—Persistent cephalalgia, contraction of the muscles of the nape of the neck, dilatation of pupils, alternate redness and paleness of the face, slowness of speech, groaning, contraction of limbs, vomiting, etc.; pulse, 88 to 92; temperature, nominal. On the eighth day a treatment, consisting of mercurial frictions, and from a half to one drachm of iodide of potassium internally, was begun, and then the latter remedy alone was employed; the amendment was most rapid after three days. The use of the iodide was suspended as a trial, and the headache returned, but resumption of the remedy again removed it, and at the end of eight days the patient (a syphilitic woman) left the hospital entirely recovered.—*Foreign Gleanings—Lancet*, August, 1873.

## About Books.

ON THE ETIOLOGY OF HEREDITARY SYPHILIS. ON THE PROGNOSIS OF SYPHILIS. By F. R. STURGIS, M.D. Pamphlets, pp. 38 and 8. D. Appleton & Co.: New York.

In the first *brochure* the author divides his subject into two parts: in the first he endeavors to show that which has been for some time generally recognized, save by a few, for a child to become syphilitic by inheritance the mother must have been diseased, or, in other words, that the semen is *per se* incapable of transmitting syphilis. In the second part, he briefly and in a very critical manner reviews the cases advanced in support of the theory of the paternal influence by Hutchinson, of London, Langston Parker, Diday and others of equal weight; and demonstrates that, to arrive at definite conclusions, it will be necessary to make new and independent observations. The author appears to be entirely ignorant of the fact that this subject has been thoroughly discussed by M. H. Mireur, in an admirable critical essay published in 1867, entitled *Essai sur l'hérédité de la syphilis*.

In the other *brochure* the author advances nothing new; for it has, for some years, been generally admitted that syphilis is a self-limited disease, and in the adult, as a rule, curable; whilst in infancy, especially in the inherited form, it is in the great majority of cases necessarily fatal, owing to the nature of the lesions.

DISEASES OF THE URINARY ORGANS: INCLUDING STRICTURE OF THE URETHRA, AFFECTIONS OF THE PROSTATE, AND STONE IN THE BLADDER. By JOHN W. S. GOULEY, M.D. 1 vol. 8vo. Pp. 368. New York: William Wood & Co. 1873.

In the preface the author states that "this work is based on lectures given at Bellevue Hospital," and other "public institutions with which he has been connected." He has "endeavored to write a handy-book on the pathogeny, clinical history, and treatment of some of the graver surgical diseases of the male urinary organs." While the book possesses the merit of covering the author's personal experience, which is a creditable one, as a whole it is a desultory performance and scarcely deserves the prominent title given to it. The only portion of the work that calls for special mention is that devoted to an exposition of the author's own views regarding the use of tunnelled sounds, etc., all of which has already been published in different journals during the past five years. In the citation of authors, Dr. Gouley has shown a marked preference for the

French; the English are mentioned now and then, and his American "friends" are used mainly to corroborate his own views and successes. The Germans appear to have been entirely forgotten. As already stated, the work possesses the merit of embodying the views and practice of the author. It will not serve the purpose of what is known as a "text-book," since it fails to cover the ground of the subject it professes to treat on. It is carefully written, and illustrated with a number of wood-cuts of instruments, many of which have already done service in former publications.

**HANDBOOK OF PHYSIOLOGY.** By WILLIAM STENHOUSE KIRKES, M.D. Edited by W. MORRANT BAKER, F.R.C.S. A new American from the eighth enlarged English edition. Illustrated. 1 vol. Philadelphia: Henry C. Lea. 1873.

THIS is an excellent guide-book in the study of physiology. It gives a good account of our knowledge of physiology in a condensed form without omitting any of the details which are of any consequence. It is already well known to the student of physiology, and the last edition embraces the results of all recent investigations of a practical character. It contains two hundred and forty-eight illustrations beautifully engraved on wood. It will prove a most interesting work to those interested in the study of this branch of medicine.

**THE DISEASES OF THE PROSTATE, THEIR PATHOLOGY AND TREATMENT, COMPRISING THE JACKSONIAN PRIZE ESSAY FOR THE YEAR 1860.** By Sir HENRY THOMPSON, F.R.C.S. Fourth edition. 1 vol. 8vo. Philadelphia: Henry C. Lea. 1873.

IT is almost needless to do more than call attention to the fact that a fourth edition of this excellent work has been published, which contains several additions. Some changes have also been made in the arrangement and material of some of the chapters. It remains the standard work on this branch of surgery. It must, of necessity, form part of every surgical library.

**A MANUAL OF MEDICAL JURISPRUDENCE.** By ALFRED SWAYNE TAYLOR, M.D., F.R.S. Seventh American edition, revised from the author's latest notes, and edited with additional notes and references by JOHN J. REESE, M.D., with illustrations on wood. 1 vol. 8vo. Philadelphia: Henry C. Lea. 1873.

IN the seventh American edition of the "Manual of Medical Jurisprudence," the editor has, through the courtesy of Dr. Taylor, enjoyed the very great advantage of consulting the sheets of the new edition of the author's larger work, "The Principles and Practice of Medical Jurisprudence." The new edition contains the author's latest views upon the



various topics discussed throughout the work. Valuable references to American practice and decisions are added by the editor, serving to make the present volume most complete for the American reader. It is beyond question the most attractive as well as the most reliable manual of medical jurisprudence published in the English language. It contains many engravings to illustrate the text. The printing, paper and binding are excellent.

**THE SCIENCE AND ART OF SURGERY. BEING A TREATISE ON SURGICAL INJURIES, DISEASES, AND OPERATIONS. BY JOHN ERIC ERICHSEN. A new edition, enlarged and carefully revised by the author. 2 vols. 8vo. Philadelphia: Henry C. Lea. 1873.**

It is evident that no labor has been spared in the revised edition of this admirable text-book of surgery, to keep it well abreast of the advancements in surgical science and practice. The conservatism and completeness of the work in all the details of the art, as well as the science of surgery, has been so well appreciated in this country, that it is scarcely necessary to do more than call the reader's attention to the fact that the advances made since the fifth edition was published—about three years ago—are carefully embraced in this, the sixth edition. The work is well made. Many new illustrations have been added, and it is in all respects most creditable both to the author and those who have assisted him in the revision.

**THE PRINCIPLES AND PRACTICE OF SURGERY. BY FRANK HASTINGS HAMILTON, A.M., M.D., LL.D., ETC., ETC. Illustrated. Second Edition. Revised and corrected. 8vo. New York: William Wood & Co. 1872.**

In the preface the author states his purpose—"in the preparation of this work, to supply within the compass of a single volume of moderate size, the instruction necessary to a full understanding of all the subjects belonging properly and exclusively to surgery: the volume being intended as a text-book for students, and, at the same time, as a direct and complete guide to the surgeon." This was an exceedingly difficult undertaking, and any one who can appreciate the largeness of the subject will not be surprised at the signal failure of our author in his self-imposed task. The fact is, we have already too many of these so-called condensed text-books. They are really not up to the standard required by a good student, and certainly do not answer "as a direct and complete guide to the surgeon." The student who is desirous of studying surgery has a good choice in many admirable works by authors who aim at conveying a good knowledge of the principles and practice of surgery, and who do not take especial pains to confine themselves within a single volume. The science and art of surgery is too large to be treated in this small way. Thirteen pages devoted to Syphilis—large type and extra leaded at that! Forty pages devoted to the "Surgery of the eye, and its appendages!" This desultory (this is the

mildest term we can use) treatment of great subjects may answer Dr. Hamilton's purpose so far as his own students are concerned, but it will not add to his own reputation or enhance the value of his work in the estimation of good students, nor will it serve as a "complete guide to the surgeon." These readily made works do not serve any good purpose. In speaking as we have, we do so with no unkindly feeling towards Dr. Hamilton. His excellent work on Fractures and Dislocations bears evidence of his ability as a surgeon, and it is, with us, a matter of regret that he should appear as the author of this work on surgery. The book is illustrated very fully with wood engravings very coarsely executed. It is well printed on good paper.

**A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE; DESIGNED FOR THE USE OF PRACTITIONERS AND STUDENTS OF MEDICINE.** By AUSTIN FLINT, M.D. Fourth Edition, carefully revised. 1 vol. 8vo. Philadelphia: Henry C. Lea. 1873.

THE fourth edition of this admirable work contains all that was good in the last edition, as well as the results of all that has been done in practical medicine since the last edition was published. It is a model text-book and work of reference. Every page bears evidence of the author's judgment and skill as a clinical teacher, as well as extraordinary literary skill in conveying to the reader the results of his vast practical experience at the bedside. We notice this work with sincere pleasure—for it is a good one, and because we feel assured that it will prove of great value and interest both to the student and practitioner. The book is well made in all the details of printing, paper, and binding.

**THE CEREBRAL CONVOLUTIONS OF MAN, REPRESENTED ACCORDING TO ORIGINAL OBSERVATIONS, ESPECIALLY UPON THEIR DEVELOPMENT IN THE FŒTUS.** By ALEXANDER ECKER. Translated by ROBERT S. EDES, M.D. New York: D. Appleton & Co. 1873.

In this modest little volume the accomplished Professor of Anatomy in the University of Freiberg, essays to lay an anatomical foundation for a more accurate physiological and pathological knowledge of the human cerebrum. To those engaged in solving the mysterious problems of the brain and brain disease this interesting little volume will be especially interesting. It is evidently the result of great labor and original research.

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### Obituary.

RECENT dispatches announce the death of the distinguished French Surgeon, M. Nélaton. He died on the twenty-first day of September, in the seventy-sixth year of his age. A fuller notice of his brilliant and scientific career will appear in our next issue.

## INDEX TO VOL. IV.

---

|   | PAGE |
|---|------|
| ACCETELLA, DR. Chloral in Venereal Ulcers.....  | 186  |
| Acne and its Treatment. By Dr. Tilbury Fox.....   | 337  |
| ADRIAN, M. The Nature of Hypertrophic Lichen.....   | 277  |
| "    M. On Hypodermic Injections.....   | 182  |
| AITKEN, DR. WM. Book Notice. The Science and Practice of Medicine.                            | 91   |
| Albinismus. By Mr. W. R. Jeffries.....  | 177  |
| ANSTIE, DR. F. E. Syphilitic Facial Neuralgia cured by the Iodide of Potassium.....           | 284  |
| ANDERSON, DR. MCCALL. Book Notice. Treatment of Diseases of the Skin.....                     | 191  |
| Arsenic: its Therapeutical Application to Diseases of the Skin. By Eugene Peugnet, M.D.....   | 8    |
| ATTFIELD, DR. JOHN. Book Notice. Chemistry, etc.....  | 288  |
|   |      |
| BARETY, M. A. Syphilitic Cachexia, etc.....   | 368  |
| BAYLES, DR. GEORGE. Scarlet Fever.....  | 377  |
| BAZIN, M. On the Relations of Cutaneous Affections, etc.....                                  | 138  |
| Belladonna, Communication on. By Dr. Ringer.....  | 379  |
| BERGONZOLI, DR. F. On Chronic Eczema of the Legs.....   | 185  |
| BIZZOZERS, DR. Tuberculosis of the Skin.....  | 371  |
| Bladder, On the Detachment of Urinary Concretions from the Walls of the. By Dr. Reliquet..... | 83   |
| BLACHER, DR. E. Book Notice. Du Traitement de la Syphilis.....                                | 189  |
| BRADLEY, DR. S. M. Treatment of Dermatophyta.....   | 379  |
| BREMOND, M. Absorption of Medicinal Substances by the Skin.....                               | 176  |
| BRINTON, DR. Treatment of Urethral Fever.....   | 85   |
| BRYANT, ESQ., THOMAS. Book Notice. The Practice of Surgery.....                               | 287  |
| Burgundy Pitch in Malignant Pustules.....   | 378  |
|   |      |
| Calcium, Bromide of, in the Treatment of Syphilitic Neuralgia.....                            | 306  |
| Camphor in Hospital Gangrene, Application of Powdered. By M. Netter                           | 186  |
| Carbuncle, Malignant Facial. By F. J. Delisle.....  | 375  |
| CARTER, DR. H. V. On the Pathology of Leprosy.....  | 362  |
| Carbolic Acid. Effect of, on the Urine. By Dr. W. A. Patchett.....                            | 371  |

|  | PAGE |
|--|------|
| CARMALT, DR. W. H. Development of Cancer of the Skin.....                                | 372  |
| Cervix Uteri, Venereal Ulcerations of the. Review. by M. H. Henry,<br>M.D.....           | 28   |
| Cerebral Convolutions of Man, etc. By Dr. Alexander Ecker. Book<br>Notice.....           | 383  |
| CHAPMAN, DR. EDWIN N. Book Notice. Hysterology, etc.....                                 | 92   |
| Charbon. Treatment of Contagious. By Dr. Wasservogl.....                                 | 282  |
| CHAUFFARD, M. The Etiology of Typhus.....  | 280  |
| Chancre, Secondary Indurations and Transformations of. By Dr. Alfred<br>Fournier.....    | 51   |
| Chemistry: General Medical and Pharmaceutical. By Dr. John Attfield.<br>Book Notice..... | 288  |
| Chloral Hydrate in Soft Ulcers and Ulcerated Buboës. Local use of....                    | 282  |
| “ in Venereal Ulcers. By Dr. Accetella.....  | 186  |
| CLARKE, MR. ANDREW. Syphilitic Sore on the Female Nipple.....                            | 83   |
| CLYMER, DR. MEREDITH. Book Notice. Epidemic Cerebro-Spinal<br>Meningitis.....            | 93   |
| COHEN, DR. J. S. Book Notice. Diseases of the Throat.....                                | 189  |
| COHN, DR. Organism in Vaccine Virus.....   | 178  |
| Copaiba Resina as a Substitute for Simple Copaiba.....                                   | 378  |
| Cutaneous Respiration. By M. Röhrig.....   | 175  |
| “ Sensibility, On the Disturbances of. By Dr. H. Nothnagel..                             | 374  |
| “ Affections, On the Relations of. By M. Bazin.....                                      | 198  |
| Cystitis, Treatment of. By Dr. Pouliot.....  | 282  |
| DAMON, DR. HOWARD F. New Treatment of Venereal Diseases. Book<br>Notice.....             | 89   |
| DELAFIELD, DR. FRANCIS. A Case of Syphilitic Tumors of the Spinal<br>Nerves.....         | 26   |
| “ DR. F. Book Notice. Hand-Book of Post-mortem Exam-<br>inations.....                    | 189  |
| Depilating Forceps, A New Pair of. By Dr. M. H. Henry.....                               | 94   |
| Dermatophyta, Treatment of. By Dr. S. M. Bradley.....                                    | 379  |
| DUCKWORTH, DR. DYCE. Four Cases of Molluscum Contagiosum.....                            | 372  |
| Dugong Oil. By Dr. Holt.....   | 88   |
| DUHRING, DR. L. A. Review on Diseases of the Skin.....                                   | 34   |
| DUNGLISON, DR. ROBLEY. Book Notice. The History of Medicine...                           | 91   |
| DUNCAN, DR. MATHEWS. Gonorrhœa of the Ducts of Cowper's<br>Glands.....                   | 170  |
| DURHAM, MR. Plastic Operation on the Urethra of a Boy.....                               | 373  |
| Dysidrosis, On. By Tilbury Fox, M.D.....   | 1    |
| ECKER, DR. ALEXANDER. Book Notice. The Cerebral Convolutions of<br>Man, etc.....         | 383  |
| Eczema of the Legs. By Dr. F. Bergonzoli.....  | 185  |
| “ Soap as a Cause of. By R. M.....   | 83   |
| Editorial.....   | 95   |

|  | PAGE |
|--|------|
| Elephantiasis Græcorum. By Dr. Robert Liveing.....   | 231  |
| Epithelial Disease grafted on a Congenital Wart. Dr. Gross.....                                    | 78   |
| ERICHSEN, JOHN ERIC. Book Notice. The Science and Art of Surgery .....                             | 382  |
| FLINT, DR. AUSTIN. Book Notice. A Treatise on the Principles and Practice of Medicine.....         | 383  |
| FOSTER, DR. F. P. Vaccinal Syphilis.....   | 201  |
| FOURNIER, DR. ALFRED. Secondary Indurations and Transformations of Chancre .....                   | 51   |
| “ DR. ALFRED. Onyx and Perionyx as Accidents of Secondary Syphilis.....                            | 61   |
| “ DR. ALFRED. Secondary Adenopathies of Syphilis.....  | 149  |
| FOX, DR. TILBURY. Acne and its Treatment.....  | 337  |
| “ DR. TILBURY. On Dysidrosis .....   | 1    |
| FRISBIE, DR. Case of Pessema.....  | 82   |
| GAY, ESQ., JOHN. On certain Fatty or Lipomatous Tumors.....  | 168  |
| GILLETTE, DR. W. R. A new Method of Dilatation by means of Sponge Tents in Cases of Phimosis ..... | 104  |
| Glands, Enlarged. By M. Malassez.....  | 80   |
| GODFREY, DR. BENJAMIN. Obituary.....   | 95   |
| Gonorrhœa and Gleet, The Earth-Cure in.....  | 378  |
| “ and Chordee. Death through. Reported by Dr. Villeneuve.  | 377  |
| “ and Gleet by Medicated Bougies, The Treatment of. By M. G. Lorey.....                            | 181  |
| “ im Weiblichen Geschlecht, Die Latente. By Dr. Emil Noeggerath. Book Notice.....                  | 187  |
| “ of the Ducts of Cowper's Glands. By Dr. Mathews Duncan.  | 170  |
| GOULEY, DR. J. W. S. Book Notice. Diseases of the Urinary Organs.                                  | 380  |
| GROSS, DR. S. D. Syphilitic Dactylitis.....  | 78   |
| “ DR. S. D. Epithelial Disease grafted on a Congenital Wart....                                    | 78   |
| GUILLEMIN, DR. On the Employment of Iodine in the Treatment of Syphilis .....                      | 68.  |
| GÜNTZ, DR. T. E. The Treatment of Syphilis, etc.....   | 179  |
| HAMILTON, DR. F. H. Book Notice. The Principles and Practice of Surgery.....                       | 382  |
| HAMMOND, DR. W. A. Bromide of Calcium in the Treatment of Syphilitic Neuralgia.....                | 306  |
| Harvard University, Catalogue of.....  | 190  |
| HEBRA, PROF. F. Affections of the Skin occurring in Pregnant and Puerperal Women.....              | 156  |
| HENRY, DR. M. H. Syphilis: its Relations to Marriage. Review.....                                  | 311  |
| “ “ Venereal Ulcerations of the Cervix Uteri. Review.  | 28   |
| “ “ A New Pair of Depilating Forceps.....  | 94   |
| “ “ The Treatment of Syphilis.....   | 97   |

|   | PAGE              |
|---|-------------------|
| HENRY, DR. M. H. The Communication of Syphilis in the Practice of Vaccination. Review.....              | 112               |
| HEWITT, DR. GRAILY. Book Notice. The Pathology, Diagnosis, and Treatment of Diseases of Women, etc..... | 93                |
| HOLT, DR. On Dugong Oil.....  | 88                |
| HULKE, MR. J. W. The Prognosis of Warts.....  | 176               |
| HUTCHINSON, MR. JONATHAN. Treatment of Phagædenic Chancres by Continuous Irrigation.....                | 84                |
| “ MR. JONATHAN. Clinical Remarks on a Case of Non-Venereal Syphilis.....                                | 165               |
| Hydrocele, An Extraordinary Case of. By Dr. John G. Meachem.....  | 79                |
| “ of the Seminal Vesicle. By Dr. N. R. Smith.....   | 166               |
| Hydroa, Case of. By Dr. C. Handfield Jones.....   | 365               |
| Hypertrophic Lichen, The Nature of. By M. Adrian.....   | 277               |
| Hypodermic Injections. By M. Adrian.....  | 182               |
| Hysterology. By Dr. Edwin N. Chapman. Book Notice.....  | 92                |
| JEFFRIES, MR. W. R. On Albinismus.....  | 177               |
| JONES, DR. C. HANDFIELD. Case of Hydroa.....  | 365               |
| Jurisprudence, A Manual of. By Dr. A. S. Taylor. Book Notice.....                                       | 381               |
| KIRKES, DR. W. S. Book Notice. Hand-Book of Physiology.....   | 381               |
| KÖBNER, DR. H. On Reniflection in Constitutional Syphilis.....  | 128               |
| LANCERAUX, DR. E. Contagious Character of Measles.....  | 372               |
| “ DR. E. The Visceral Lesions of Inherited Syphilis.....  | 319               |
| Leprosy in the West Indies.....   | 275               |
| “ On the Pathology of. By Dr. H. V. Carter.....   | 362               |
| LEWIN, DR. GEORGE. The Treatment of Syphilis with Subcutaneous Sublimate Injections. Book Notice.....   | 89                |
| Lichen Rubra of Hebra.....  | 372               |
| Lipomatous Tumors, On Certain Fatty or. By John Gay, Esq.....   | 168               |
| LISLE, F. J. DE. Malignant Facial Carbuncle.....  | 375               |
| LIVEING, DR. ROBERT. Lectures on Elephantiasis Græcorum.....  | 231               |
| LOREY, M. G. The Treatment of Gonorrhœa and Gleet by Medicated Bougies.....                             | 181               |
| Lupus Erythematosus Treated with Woodhall Water.....  | 285               |
| LUSSACRA, DR. The Cause of Pellagra.....  | 80                |
| MALASSEZ, M. Enlarged Glands.....   | 80                |
| MAURIAC, DR. CHARLES. Treatment of Paraphimosis.....  | 87                |
| “ DR. CHARLES. On the Early Syphilitic Affections of the Bones.....                                     | 43, 160, 267, 351 |
| MEACHEM, DR. J. G. An Extraordinary Case of Hydrocele.....  | 79                |
| Measles, Contagious Character of. By Dr. E. Lanceraux.....  | 372               |
| Medicine, The History of. By Dr. Robley Dunglison. Book Notice.....                                     | 91                |
| “ A Treatise on the Principles and Practice of. By Dr. Austin Flint. Book Notice.....                   | 383               |

|   | PAGE |
|---|------|
| Medicine, The Science and Practice of. By Dr. Wm. Aitken. Book Notice.....                            | 91   |
| Melanodermas, The. By Dr. E. Peugnet. Review.....   | 205  |
| Meningitis, Epidemic Cerebro-Spinal. By Dr. Meredith Clymer. Book Notice.....                         | 98   |
| Molluscum Contagiosum, Four Cases of. By Dr. Dyce Duckworth ....                                      | 372  |
| Nerve Nævi. By Dr. Simon.....   | 178  |
| NETTER, M. Application of Powdered Camphor in Hospital Gangrene.                                      | 186  |
| NEUMANN, DR. J. Influence on the Skin of the Bromide of Potassium.                                    | 283  |
| NOEGGERATH, DR. EMIL. Book Notice. Die Latente Gonorrhœ im Weiblichen Geschlecht.....                 | 187  |
| NÉLATON, M. Obituary.....   | 384  |
| NOTHNAGEL, DR. H. On the Disturbances of Cutaneous Sensibility...                                     | 374  |
| NUNN, MR. T. W. Treatment of Lupus Erythematosus.....   | 285  |
| OTTO, DR. Hypodermic Injection of Quinine.....  | 88   |
| Onychia Maligna treated by Nitrate of Lead.....   | 285  |
| Ovarian Tumors; their Pathology, Diagnosis, and Treatment. By Dr. E. R. Peaslee. Book Notice.....     | 90   |
| Paraphimosis, Treatment of. By Dr. Charles Mauriac.....   | 87   |
| PATCHETT, DR. W. A. Effect of Carbolic Acid on the Urine.....   | 371  |
| PARRY, DR. JOHN S. Book Notice. Two Lectures on Inherited Syphilis.....                               | 187  |
| PEASLEE, DR. E. R. Book Notice. Ovarian Tumors, etc.....  | 90   |
| Pellagra, The Cause of. By Dr. Lussacra.....  | 80   |
| PERCY, DR. S. R. Book Notice. The Physiological Value of Phosphorus as an Organismal Element.....     | 92   |
| Pessema, Case of. By Dr. Frisbie.....   | 82   |
| PETTROW, M. Alterations of the Nervous System in Constitutional Syphilis.....                         | 281  |
| PEUGNET, DR. E. The Melanodermas. Review.....   | 205  |
| “ DR. EUGENE. Arsenic: its Therapeutical Value in Diseases of the Skin.....                           | 8    |
| Phagædenic Chancres, Treatment of by Continuous Irrigation. By Mr. Jonathan Hutchinson.....           | 84   |
| Phimosis, A New Method of Dilatation by means of Sponge Tents in Cases of. By Dr. W. R. Gillette..... | 104  |
| Phosphorus; its Physiological Value as an Organismal Element. By Dr. S. R. Percy. Book Notice.....    | 92   |
| Physiology, Hand-book of. By Dr. W. S. Kirkes. Book Notice.....                                       | 381  |
| PIFFARD, DR. H. G. A Guide to Urinary Analysis. Book Notice....                                       | 288  |
| Post-mortem Examinations, Hand-book of. By Dr. F. Delafield. Book Notice.....                         | 189  |
| Potassium employed Internally; Pathogenic Influence on the Skin of Bromide of. By Dr. J. Neumann..... | 283  |
| POULIOT, DR. Treatment of Cystitis.....   | 282  |

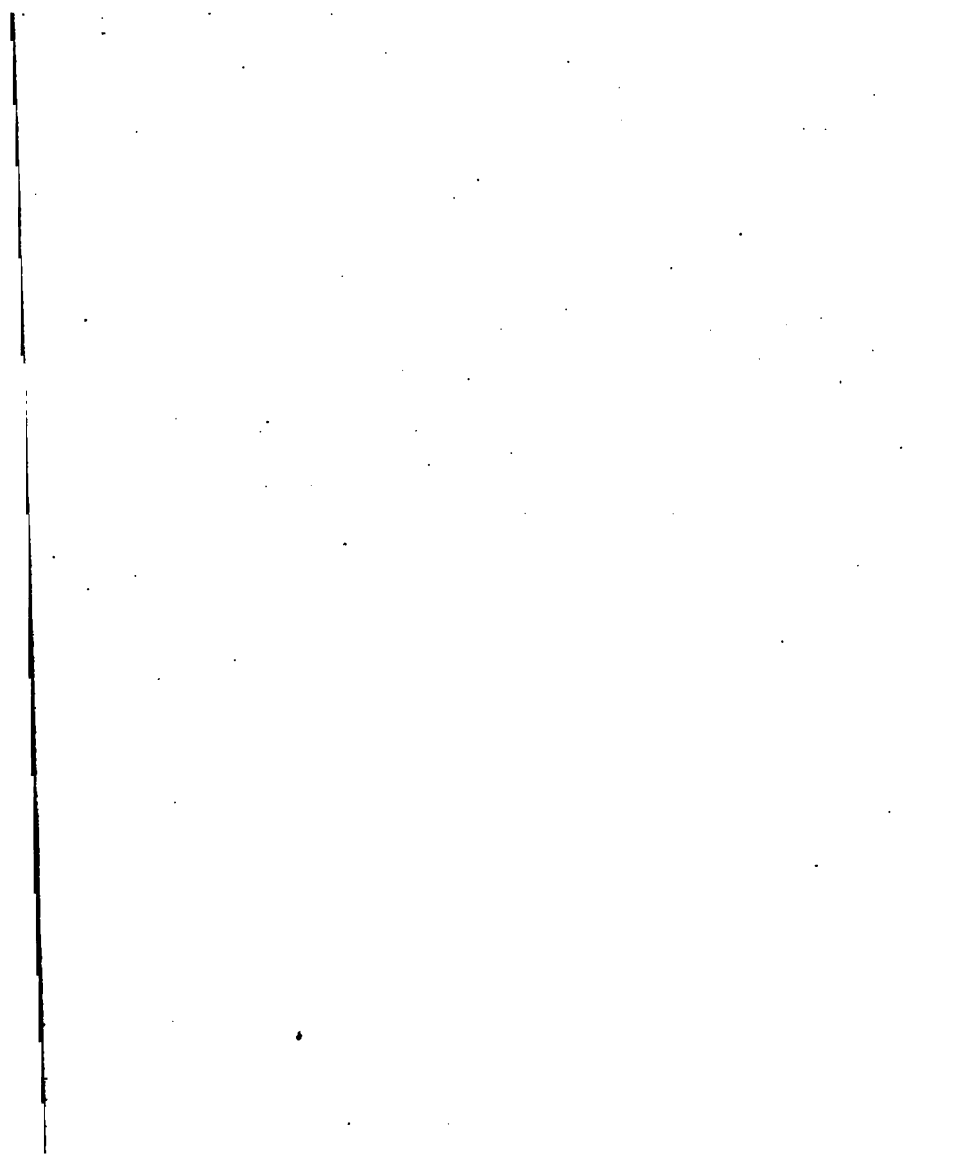
|   | PAGE |
|---|------|
| Pregnancy, The Pathology, Diagnosis, and Treatment of. By Dr. Graily Hewitt. Book Notice.....     | 93   |
| Prostate, Diseases of the. By Sir Henry Thompson. Book Notice....                                 | 381  |
| Prurigo Ferox Universalis, Case of, with Remarks. By Edward Wigglesworth, M.D.....                | 21   |
| Psoriasis: its Etiology, Relation to Rheumatic Disease, etc.....                                  | 319  |
| Quinine, Hypodermic Injection of.....   | 88   |
| REES, DR. OWEN. Diagnosis and Treatment of Cerebral Disease originating in Syphilis.....          | 81   |
| RELIQUET, DR. On the Detachment of Urinary Concretions from the Walls of the Bladder.....         | 83   |
| RINGER, DR. SYDNEY. On Belladonna.....  | 379  |
| Rhus Venenata and Rhus Toxicodendron, On the Action. By Dr. James C. White.....                   | 172  |
| RICHTER, DR. Urethral Hæmorrhoids.....  | 285  |
| ROBERTS, DR. W. Practical Treatise on Urinary and Renal Diseases. Book notice.....                | 89   |
| Rodent Cancer successfully Treated by Excision and Canterization.....                             | 284  |
| RODET, M. A. On the Non-identity of the Origin of Variola and Varicella.....                      | 174  |
| RÖHRIG, M. On Cutaneous Respiration.....  | 175  |
| SATTERLEE, DR. F. LE ROY. Psoriasis; its Etiology, Relation to Rheumatic Disease, etc.....        | 193  |
| Scarlet Fever. By Dr. George Bayles.....  | 377  |
| Scleroderma, On. By Dr. Arthur Van Harlingen.....   | 289  |
| SIGMUND, DR. KARL. Practical Observations on the Use of Carbolic Acid in Syphilitic Diseases..... | 84   |
| SIMON, DR. On Nerve Nævi.....   | 178  |
| Skin Diseases. Report of Boston Dispensary for.....   | 287  |
| “ “ “ “ Philadelphia Dispensary for.....  | 287  |
| “ Tuberculosis of the. By Dr. Bizzozzer.....  | 371  |
| “ Affections occurring in Pregnant and Puerperal Women. By Prof. F. Hebra.....                    | 156  |
| “ On Diseases of the. By Hebra and Kaposi, Review by Dr. L. A. Duhring.....                       | 34   |
| “ Development of Cancer of the. By Dr. W. H. Carmalt.....   | 372  |
| “ Treatment of Diseases of the. By Dr. McCall Anderson. Book Notice.....                          | 191  |
| “ Absorption of Medicinal Substances by the. By M. Bremond....                                    | 176  |
| SMITH, DR. N. R. Hydrocele of the Seminal Vesicle.....  | 166  |
| “ DR. PYE. Cases of Xantholasma.....  | 177  |
| Stains. Removal of Nitrate of Silver. By Dr. L. P. Yandell.....                                   | 373  |
| STARTIN, JAMES. Obituary.....   | 192  |
| STURGIS, DR. F. R. Book notice. On the Etiology of Hereditary Syphilis.....                       | 380  |

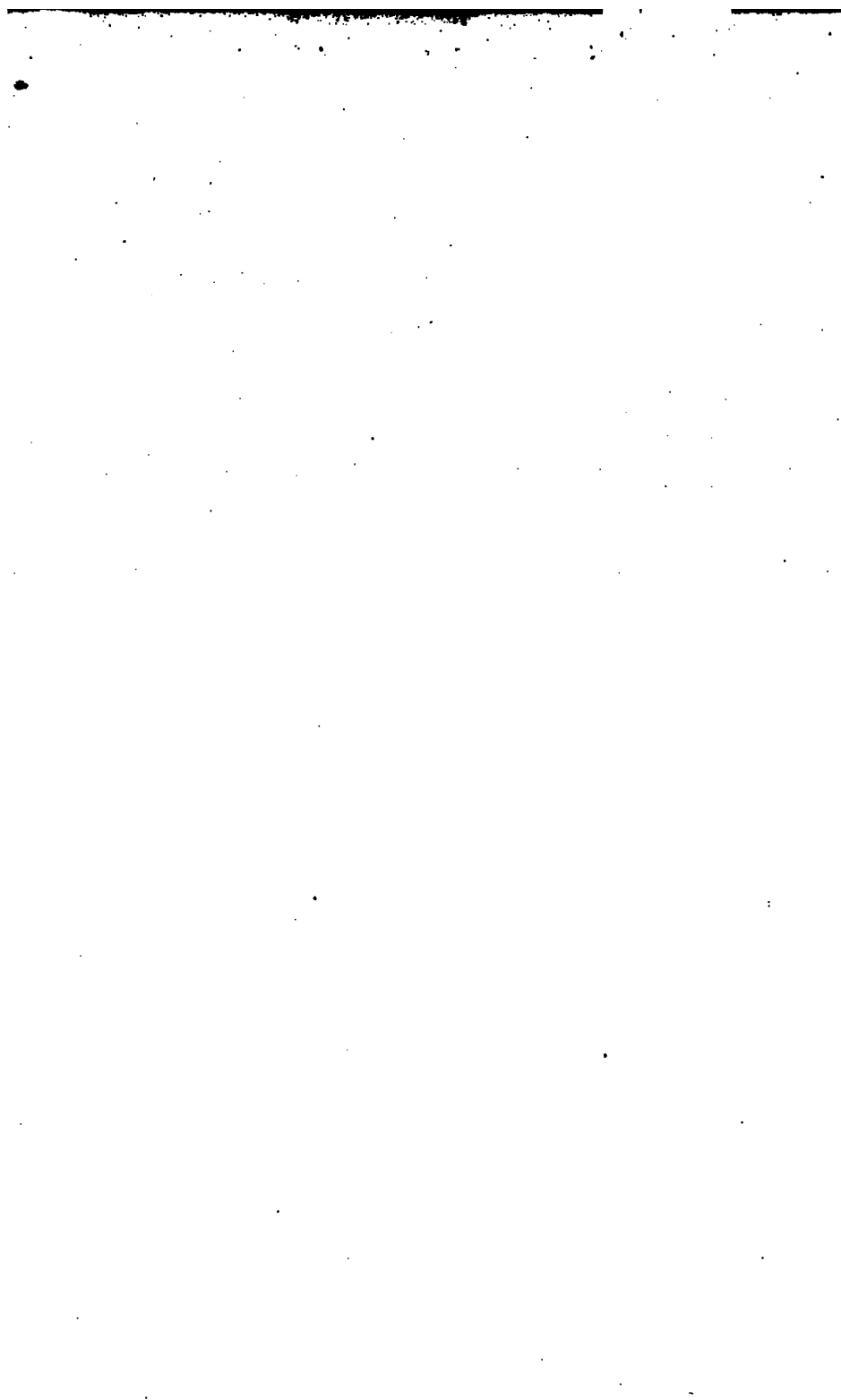


|   | PAGE              |
|---|-------------------|
| Surgery. The Science and Art of. By John Eric Erichsen. Book Notice.....                    | 382               |
| “ The Principles and Practice of. By Dr. F. H. Hamilton. Book Notice.....                   | 382               |
| “ The Practice of. By Thomas Bryant, Esq. Book Notice...                                    | 287               |
| Syphilide, Papular. On a Peculiarity of the. By Dr. R. W. Taylor...                         | 107               |
| Syphilis, Vaccinal. By Dr. F. P. Foster.....  | 201               |
| “ Onyxis and Perionyxis as Accidents of Secondary. By Dr. Alfred Fournier.....              | 61                |
| “ The Treatment of. By Dr. M. H. Henry.....   | 97                |
| “ The Treatment of. By Dr. T. E. Güntz.....   | 179               |
| “ Alterations of the Nervous System in Constitutional. By M. Pettrow.....                   | 281               |
| “ On the employment of Iodine in the Treatment of. By Dr. Guillemin.....                    | 68                |
| “ Its relations to Marriage. Review. By Dr. M. H. Henry....                                 | 311               |
| “ Clinical Remarks on a Case of Non-venereal. By Jonathan Hutchinson, Esq.....              | 165               |
| “ Two Lectures on Inherited. By Dr. John S. Parry. Book Notice.....                         | 187               |
| “ On Reinfection in Constitutional. By Dr. H. Köbner.....                                   | 128               |
| “ The Communication of, in the Practice of Vaccination. Review. By Dr. M. H. Henry.....     | 112               |
| “ On the Etiology of Hereditary. By Dr. F. R. Sturgis. Book Notice.....                     | 380               |
| “ Diagnosis and Treatment of Cerebral Disease Originating in. By Dr. Owen Rees.....         | 81                |
| “ The Treatment of. By Dr. George Lewin. Book Notice....                                    | 89                |
| “ The Visceral Lesions of Inherited. By Dr. E. Lanceraux....                                | 319               |
| “ Du Traitement de la. By Dr. E. Blacher. Book Notice.....                                  | 189               |
| “ Secondary Adenopathics of. By Dr. A. Fournier.....  | 149               |
| Syphilitic Affections of the Bones, On the Early. By Charles Mauriac, M.D.....              | 43, 160, 267, 351 |
| “ Cachexia. By M. A. Barety.....  | 368               |
| “ Sore on the Female Nipple. By Mr. Andrew Clarke.....                                      | 83                |
| “ Diseases. Practical Observations on the Use of Carbolic Acid in. By Dr. Karl Sigmund..... | 84                |
| “ Case of Tumors of the Spinal Nerves. By Dr. Francis Delafield.....                        | 26                |
| “ Facial Neuralgia cured by the Iodide of Potassium. By Dr. F. E. Anstie.....               | 284               |
| “ Dactylitis. By Dr. S. D. Gross.....   | 78                |
| “ Meningitis rapidly cured by Iodide of Potassium.....                                      | 380               |
| Tar, The Local Use of. By Dr. H. D. Bulkley.....  | 184               |
| TARNOWSKY on Venereal Diseases. Review.....   | 222               |
| TAYLOR, DR. R. W. A Case of Tinea Versicolor.....   | 110               |

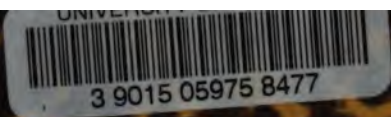
|   | PAGE |
|---|------|
| TAYLOR, DR. R. W. On a Peculiarity of the Papular Syphilide.....                      | 107  |
| "    DR. A. S. Book Notice. A Manual of Medical Jurisprudence                         | 381  |
| Tinea Versicolor, A Case of. By Dr. R. W. Taylor.....                                 | 110  |
| THOMPSON, SIR HENRY. Book Notice. Diseases of the Urinary Organs                      | 286  |
| "    "    Book Notice. Diseases of the Prostate.....                                  | 381  |
| Throat, Diseases of the. By Dr. J. S. Cohen. Book Notice.....                         | 189  |
| Typhus, The Etiology of. By M. Chauffard.....   | 280  |
| Urethral Fever, Treatment of. By Dr. Brinton.....                                     | 85   |
| Urethra, Plastic Operation on the. By Mr. Durham .....                                | 373  |
| Urethral Hæmorrhoids. By Dr. Richet.....  | 285  |
| Urinary Analysis, A Guide to. Book notice. By Dr. H. G. Piffard ....                  | 288  |
| "    Organs, Diseases of the. By Sir Henry Thompson. Book Notice.....                 | 286  |
| "    and Renal Diseases, A Practical Treatise on. By Dr. W. Roberts. Book Notice..... | 89   |
| "    Organs, Diseases of the. By Dr. J. W. S. Gouley. Book Notice                     | 380  |
| Vaccine Virus, Organism in. By Dr. Cohn.....  | 178  |
| VAN HARLINGEN, DR. ARTHUR. On Scleroderma.....  | 289  |
| VANZETTI, PROF. Treatment of Onychia Maligna.....                                     | 285  |
| Variola and Varicella, On the Non-identity of the Origin. By M. A. Rodet .....        | 174  |
| "    Hæmorrhagica and Purpura Variolosa, On the Anatomy of. By Dr. Oscar Wyss.....    | 72   |
| Venereal Diseases, Review of Tarnowsky on.....  | 222  |
| "    "    New Treatment of. By Dr. H. F. Damon.....                                   | 89   |
| Warts, Prognosis of. By Mr. J. W. Hulke.....  | 176  |
| WASSERVOGL, DR. Treatment of Contagions. Charbon.....                                 | 282  |
| WHITE, DR. JAMES C. On the Action of Rhus Venenata and Rhus Toxicodendron .....       | 172  |
| WYSS, DR. OSCAR. On the Anatomy of Variola Hæmorrhagica and Purpura Variolosa.....    | 72   |
| WIGGLESWORTH, DR. EDWARD. Case of Prurigo Ferox Universalis, with Remarks.....        | 21   |
| Xanthoma Palpebrarum, On the Anatomy of. By Drs. Edward Geber and Oscar Simon.....    | 119  |
| Xanthelasma, Cases of. By Dr. Pye Smith.....  | 177  |
| YANDELL, DR. L. P. Removal of Nitrate of Silver Stains.....                           | 373  |











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